Houston-Galveston
Area Council

Regionally Coordinated Transportation Plan

2022-2026

Houston-Galveston Area Council

Published February 2022

RESOLUTION

ADOPTION OF THE 2022-2026 REGIONALLY COORDINATED TRANSPORTATION PLAN FOR THE GULF COAST REGION

WHEREAS, the Houston-Galveston Area Council has been designated as the local partner to coordinate the Regionally Coordinated Transportation Plan for the 13-county Gulf Coast region,

WHEREAS, this plan is required to be updated every five years and was last updated for the period 2017-2021,

WHEREAS the plan provides an inventory of the transportation assets in the region and assesses needs, gaps and opportunities for increased efficiency in public and human services transportation,

WHEREAS, plan development was guided by the Regional Transit Coordination Subcommittee including representation from the public transportation and human services communities, and was presented to the Transportation Policy Council, and

WHEREAS, the 2022-2026 Regionally Coordinated Transportation plan furthers recommendations from the prior plan and includes new recommendations to improve efficiency and effectiveness of public and human services transportation in the region,

NOW, THEREFORE BE IT RESOLVED BY THE HOUSTON-GALVESTON AREA COUNCIL BOARD OF DIRECTORS:

1. That the Houston-Galveston Area Council Board of Directors adopts the 2022-2026 Regionally Coordinated Transportation Plan to improve public and human services transportation in the 13-county region.

2. That this motion shall be in effect immediately upon adoption and shall remain in effect until such time as this body rescinds said action.

PASSED AND APPROVED this 15th day of February 2022, at a regularly scheduled meeting of the Board of Directors of the Houston-Galveston Area Council.

APPROVED:

The Honorable William King III
Mayor Pro Tem, City of Dickinson
H-GAC Chair

ATTEST:

The Honorable Sally Branson
Councilmember, City of Friendswood
H-GAC Vice Chair

Resolution

NO. 2022-4

AUTHORIZING ADOPTION OF THE 2022-2026 REGIONALLY COORDINATED TRANSPORTATION PLAN FOR THE GULF COAST REGION.

WHEREAS, the Houston-Galveston Area Council (H-GAC) is designated as the Metropolitan Planning Organization (MPO) for the Houston - Galveston Transportation Management Area by the Governor of Texas in accordance with federal law, and;

WHEREAS, the Transportation Policy Council (TPC) is the regional transportation policy body, and;

WHEREAS, Fixing America's Surface Transportation Act and the subsequent Infrastructure Investment and Jobs Act (IIJA), signed into law November 15, 2021, require the implementation of Performance Measures to assist in the transportation planning process; and

WHEREAS, the Regionally Coordinated Transportation Plan for the 13-county Gulf Coast region is required to be updated every five years and was last updated for the period 2017-2021, and;

WHEREAS, the plan provides an inventory of the transportation assets in the region and assesses needs, gaps and opportunities for increased efficiency in public and human services transportation, and;

WHEREAS, plan development was guided by the Regional Transit Coordination Subcommittee including representation from the public transportation and human services communities, and was presented to the Transportation Policy Council, and;
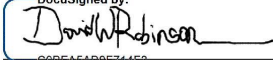
WHEREAS, the 2022-2026 Regionally Coordinated Transportation plan furthers recommendations from the prior plan and includes new recommendations to improve efficiency and effectiveness of public and human services transportation in the region, and;

NOW, THEREFORE, BE IT RESOLVED THAT THE TRANSPORTATION POLICY COUNCIL FOR THE HOUSTON-GALVESTON TRANSPORTATION MANAGEMENT AREA HAS AGREED TO ADOPT THE 2022-2026 REGIONALLY COORDINATED TRANSPORTATION PLAN TO IMPROVE PUBLIC AND HUMAN SERVICES TRANSPORTATION.

APPROVED: ATTEST:

Hon. David Robinson, Chairman   Hon. Nancy Arnold, Secretary
Transportation Policy Council   Transportation Policy Council

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Executive Summary

The Greater Houston region is growing rapidly, and this growth is expected to continue for the foreseeable future. Since 2015, the 13-county region covered by this report has grown by 3.4%, topping the seven million mark in total population. H-GAC growth estimates suggest that by 2050, the region's population will grow past 11 million[1]. As the population keeps growing, the region's transportation needs will grow with it. While the transportation needs and barriers of all the region's residents are considered in this plan, the Regionally Coordinated Transportation Plan (RCTP) update focuses on the needs of seniors, students, veterans, persons with disabilities, those with limited English proficiency, and other groups considered disproportionately likely to need help meeting their transportation needs. According to the U.S. Census Bureau's American Community Survey (ACS), all these groups are well-represented in the region: Among those seven million-plus residents are more than 750,000 people over the age of 65, nearly 340,000 working-age adults with disabilities, more than one million who report limited English proficiency, more than 270,000 veterans, and

more than 2.5 million student-aged individuals. Many of these people live in areas with little or no transportation service.

Ninety-two million trips were taken on public transit in the region in 2019, almost 90 million of which were taken on Houston METRO, according to the U.S. Department of Transportation's Federal Transit Administration. While METRO is the largest transit agency in the region, a variety of public and private transit providers play vital roles in ensuring the region's residents can access jobs, healthcare, education, and other vital services. Transit providers in the region have faced many challenges in recent years. A lack of dedicated funding, in the form of taxes or fees that are reliable and exclusively allocated to transit, for agencies other than METRO, limits the amount of service that can be provided. Road congestion and low-density development patterns make providing efficient, high-quality service difficult. On top of these long-term issues, the COVID-19 pandemic has brought additional challenges, including significant ridership declines and increased expenditures for enhanced cleaning and other precautions to keep riders and

agency employees safe. Through the Regionally Coordinated Transportation Plan Steering Committee (a working group of the Regional Transportation Coordination Subcommittee), staff have ensured that the region's transit providers have been involved at all stages of the process of developing this plan. In addition to the region's transit providers, the steering committee also included representatives of other key stakeholder organizations, such as persons with disabilities, seniors, and veterans.

In addition to this stakeholder involvement, a robust public outreach process was conducted as part of this RCTP update. Due to restrictions placed on in-person gatherings as a result of the COVID-19 pandemic, all outreach was conducted virtually. An engagement website was established for this project. An initial round of outreach, which took place in summer 2021, included a series of virtual interactive events, an online survey, and a mapping activity. A second round of outreach, which took place in fall 2021, consisted of a series of focus groups. This extensive public engagement process provided vital insight into the transportation needs of the region's residents and the barriers they face trying to access transportation services.

This plan finds several key gaps that limit the effectiveness of current transportation services in the region, in turn limiting access for many residents of the region to the jobs and services they need. In some parts of the region, no transportation services are available at all while many other parts of the region do not seem to provide enough service to meet their residents' needs or do not provide service to the destinations those residents want to reach. Many in the region are unaware of the services available in their community, or they struggle to find the vital information they need to make use of those services.

Even before these gaps can be filled, the region's transportation providers must find the resources to continue providing their current levels of service. Transit operating expenses are expected to rise

across the region, and providers will need to find additional revenue to meet their riders' needs. With the recent passage of the Bipartisan Infrastructure Law (also known as the Infrastructure Investment and Jobs Act), new federal funding streams will soon become available. The region's transit providers will need to find local matching funds to make the most of these new opportunities.

This plan finds four key opportunities for improved coordinated public transportation service in the region. The region should:

- Add new services and expand existing services, both to address current unmet needs and to ensure the region's transportation options keep pace with the region's rapid growth.

- Better understand the information needs of transportation users in the region and ensure that information about transit is easily accessible to everyone who needs it.

- Improve non-emergency medical transportation and paratransit services, to ensure that seniors and persons with disabilities have access to jobs, healthcare, and vital services.

- Better coordinate with private nonprofit and for-profit transportation providers, as they are vital to meeting the region's transportation needs.

Introduction

The Federal Transit Administration (FTA) requires each state to engage in the development of a regionally coordinated transportation planning process every five years. The Texas Department of Transportation - Public Transportation Division (TxDOT-PTN) coordinates that process for 24 regions in the state of Texas, resulting in coordinated transportation plans for each region. TxDOT Region 16, the Gulf Coast Planning Region, is comprised of 13 counties: Austin, Brazoria, Chambers, Colorado, Fort Bend, Galveston, Harris, Liberty, Matagorda, Montgomery, Walker, Waller, and Wharton. Harris County sits at the core of this region and is home to the city of Houston, the fourth-largest city in the United States and a center of the global energy and petrochemical industries[1].

While the entire region has seen population growth in recent years, this growth has been fastest in a ring around the region's core, in outlying parts of Harris County as well as suburban counties like Fort Bend, Montgomery, Waller, and Chambers, each of which has grown by 6% or more since 2015. These areas are also home to significant concentrations of people who are disproportionately likely to rely on transportation services, such as persons with disabilities, students, and veterans.

While growth is fastest in these parts of the region, the limited availability of transportation services is a problem regionwide. Throughout the region, there are residents who encounter barriers to accessing the transportation services they need, and this is shown by quantitative and spatial analyses performed for this planning process. This report contains a variety of analyses that illuminate the gaps in the region's transportation network and recommend ways to address these gaps.

This plan has been developed with oversight from the Regionally Coordinated Transportation Plan Steering Committee, a working group of H-GAC's Regional Transportation Coordination Subcommittee. This steering committee includes representatives from many of the region's transit providers, as well as representatives from key stakeholder organizations. The steering committee has been involved at all stages of developing this plan. They helped create the plan's vision and goals and suggested starting points for project elements based on their knowledge and experience. For example, this plan's examination of "information gaps" as one significant barrier for transit use in the region grew out of a suggestion by steering committee members that many in the region are unaware of the transit services available in their community. Additionally, steering committee members provided feedback on draft analyses throughout the development of this plan. The steering committee has played a vital role in the creation of this RCTP update. A roster of steering committee members can be found as an appendix. This plan includes six main elements:

- A Provider Inventory detailing the services that currently exist in the region

- A Regional Needs Assessment, which analyzes the region's met and unmet transportation needs

- A Public Outreach Report describing and analyzing the results from the first round of public outreach undertaken for this planning process

- A Gap Analysis, which takes a deeper dive into the region's unmet transportation needs and provides recommendations to meet those needs

- A Strategic Plan, which describes the vision,

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[1] "Proximity Counts: How Houston Dominates the Oil Industry." https://www.forbes.com/sites/uhenergy/2018/08/22/proximity-counts-how-houston-dominates-the-oil-industry/?sh=1093588a6107, Accessed January 3, 2022.

goals, and objectives of the RCTP update, includes performance metrics to measure progress towards meeting these goals and objectives, and provides a set of recommendations to help the region achieve those goals and objectives

- A Financial Plan, which examines the funding needs of the region's transportation providers and provides suggestions for how those providers can maximize the funding available to them

Each of these elements is discussed in this document, and a full write-up of each element is attached to this document in the appendices, with an additional appendix detailing the focus groups held as part of the public outreach process for this update.

Transportation Resources in the Region

Introduction

The Regionally Coordinated Transportation Plan (RCTP) process aims to provide more effective and better-connected transportation options for the Texas Gulf Coast region, with a particular focus on seniors, persons with disabilities, veterans, children, persons with low-incomes, and other populations likely to need transportation services. As part of this process, it is important to document the services currently available in the region to better understand existing transportation resources. To accomplish this goal, H-GAC developed and conducted a transportation provider survey for agencies and organizations providing public fixed route and demand response transit services, along with other for-profit and not-for-profit transportation providers. This survey provides key information that better illuminates the successes and challenges associated with providing transportation services in the Texas Gulf Coast region.

Provider Survey Methodology and Responding Agencies

The provider survey questionnaire was developed by H-GAC staff in the spring of 2021. To simplify the data collection process as much as possible, H-GAC staff built a custom form for the survey and hosted it on the H-GAC website. Topics addressed in the survey included:

- Basic information about services, provided through organizational brochures and web links
- The transportation provider's vehicle fleet
- The provider's use of technology in its operations
- The provider's income and expenditures
- The use of third parties to provide services, where applicable
- Comments from the provider about how H-GAC can help them provide better service

The survey was reviewed extensively, both internally by H-GAC staff and externally by the members of the RCTP Steering Workgroup. The survey was also sent out to providers via email on May 17, 2021, using a list of recipients drawn from the database that powers H-GAC's Mobility Links program.

H-GAC staff and the RCTP Steering Workgroup both made significant efforts to reach out to every provider in the database. However, reaching providers and getting them to complete the survey were persistent hurdles in this process. Of the 85 transportation providers listed in the Mobility Links database, 23 (27%) submitted survey responses.

The names and types of the 18 agencies who responded to the survey are as follows:

- A New Haven Healthcare Services (For Profit)
- AET Transportation (For Profit)
- American Cancer Society (Not for Profit)
- Blue Sky Ground Transportation (For Profit)
- Brazos Transportation Service (Government Agency)
- Bryant Transportation Service (For Profit)
- Chambers County West Side Transportation (Government Agency)
- City of Conroe (Government Agency)
- Colorado Valley Transit (Government Agency)
- Communities in Schools Bay Area
- Family Houston (Not for Profit)
- First Med Care EMS (For Profit)
- Fort Bend County Transit (Government Agency)
- Gulf Coast Transit District (Government Agency)
- Harris County Transit (Government Agency)
- Island Transit (Government Agency)
- Meals on Wheels Montgomery County (Not for Profit)
- Mounting Horizons (Not for Profit)
- On the Road Lending (Not for Profit)

- Paler Transport (For-Profit)
- Senior Services of West University (Government Agency)
- The Woodlands Township (Government Agency)
- Wharton County Junior College Senior Citizen Program (Not-for Profit)

The following Matrix of Responding Agencies contains additional information about each of these providers.

Matrix of Responding Agencies

Agency Name	Agency Type	Services Provided	Population Served	Service Area	Service Time	Cost to Ride	Vehicle Types
A New Haven Healthcare Services	For-profit	Transportation services (door-to-door)	N/A	N/A	N/A	N/A	3 sedans/station wagons (2 wheelchair accessible) 2 minivans (2 wheelchair accessible)
AET Transportation	For-profit	Transportation services (door-to-door)	General Public	Houston, Galveston, La Porte, Bay Port, Seabrook	24 hours a day, 7 days a week, 365 days a year	Varies	1 standard or converted 8-15 passenger van (wheelchair accessible)
American Cancer Society	Not-for-profit	Transportation services (door-to-door), Cancer resources and information	Cancer patients and caregivers	N/A	N/A	Free	Service provided through volunteer drivers (temporarily suspended due to COVID-19), or through donations that cover the cost of access to locally available resources
Blue Sky Ground Transportation	For-profit	Transportation services (door-to-door)	General public	N/A	N/A	Varies	1 sedan/station wagon, 2 minivans (1 wheelchair accessible), 1 standard or converted 8-15 passenger van (wheelchair accessible)
Brazos Transportation Service	Government agency	Transportation services (fixed route, demand response, ADA paratransit)	General public	Liberty, Montgomery, Walker counties	Fixed route: Monday-Friday, 9 a.m. - 4 p.m. Demand response: Monday-Friday, 6 a.m. - 6 p.m.	Fixed route: $1 base fare, $.50 discounted fare for seniors, persons with disabilities, children aged 6-12. ADA paratransit: $2 base fare	3 light duty buses, 7 medium duty buses
Bryant Transportation Service	For-profit	Transportation services (door-to-door)	General public	Harris, Fort Bend, Austin counties	N/A	Varies by area and travel distance	6 sedans/station wagons
Chambers County West Side Transportation	Government agency	Transportation services (door-to-door)	Seniors, persons with disabilities, low-income individuals	Harris, Galveston, Chambers counties	Monday-Friday, 8 a.m. - 5 p.m.	Free, donations accepted	1 minivan (wheelchair accessible)
City of Conroe	Government agency	Transportation services (fixed route, ADA paratransit)	General public	City of Conroe, Montgomery County	Monday-Friday, 7 a.m. - 7 p.m.	Fixed route: $1 base fare, $.50 discounted fare for seniors, veterans, persons with disabilities, children aged 6-18. ADA paratransit: $2 base fare	2 minivans, 2 standard/converted 8-15 passenger vans, 5 light-duty buses (all wheelchair accessible)
Colorado Valley Transit	Government agency	Transportation services (fixed route, demand response)	General public	Austin, Colorado, Waller, Wharton counties	Monday-Friday, 6 a.m. - 6 p.m.	$1 base fare for intra-city trips, $2 base fare for intra-county trips, $5 base fare for inter-county trips ADA paratransit: $2 base fare	2 sedans/station wagons, 4 minivans, 1 standard/converted 8-15 passenger vans, 22 medium-duty buses, 2 large-duty buses
Communities in Schools Bay Area	Not-for-profit	Social services, counseling	Students	Galveston, Harris counties	N/A	N/A	N/A

Agency Name	Agency Type	Services Provided	Population Served	Service Area	Service Time	Cost to Ride	Vehicle Types
Family Houston	Not-for-profit	Social services, nutrition counseling, employment/ job placement, veterans services	Veterans, children and parents, low-income individuals	Houston	N/A	N/A	N/A
First Med Care EMS	For-profit	Transportation services (emergency and non-emergency medical transportation)	General public	N/A	N/A	N/A	3 Ford F-350 ambulances
Fort Bend County Transit	Government agency	Transportation services (fixed route, demand response)	General public	Fort Bend County, Houston destinations including Texas Medical Center, Houston Galleria, Downtown Houston, Greenway Plaza	Fixed route: Monday-Friday, 4:30 a.m. - 9 p.m. Demand response: Monday-Friday, 8 a.m. - 5 p.m.	Fixed route: Fares vary by destination Demand response: $1 per ride	3 minivans, 8 standard/converted 8-15 passenger vans, 30 medium-duty buses, 22 large-duty buses (all wheelchair accessible)
Gulf Coast Transit District	Government agency	Transportation services (fixed route, demand response, ADA paratransit)	General public	Galveston and Brazoria counties	Fixed route and ADA paratransit: Monday-Friday, 6 a.m. - 6 p.m., Saturday, 8 a.m. - 6 p.m. Demand response: Monday-Friday, 7 a.m. - 5 p.m.	Fixed route: $1 base fare, $.50 discounted fare for seniors, students, and persons with disabilities ADA paratransit: $2 per ride Demand response: $2 base fare, $.25 surcharge for every mile after the first 10 miles	18 minivans (10 wheelchair accessible), 1 standard/converted 8-15 passenger van, 27 medium-duty buses (all wheelchair accessible), 18 large-duty buses (all wheelchair accessible)
Harris County Transit	Government agency	Transportation services (fixed route, ADA paratransit, non-emergency medical transportation, RIDES subsidized taxi program)	General public	Harris County, including Atascocita, Baytown, Channelview, Crosby, Galena Park, Huffman, Jacinto City, McNair, Shore Acres, South Houston, Webster, Barrett Station, Blackhawk & Scarsdale, Cloverleaf, Deer Park, Highlands, Humble, La Porte, North Forest & Sheldon, Seabrook, Tomball	Fixed route and ADA paratransit: Monday-Friday, 6 a.m. - 6 p.m., Saturday 8 a.m. - 6 p.m.	Fixed route: $1 base fare, $.50 discounted fare for seniors, students, and persons with disabilities ADA Paratransit: $2 per ride RIDES subsidized taxi program: cost varies by mode and trip length	1 minivan, 12 medium-duty buses (all wheelchair accessible)
Island Transit	Government agency	Transportation services (Fixed route, ADA paratransit)	General public	Galveston	Fixed route: Monday-Friday 6 a.m.-7:30 p.m., Saturday 7:30 a.m. - 7:30 p.m. ADA Paratransit: Monday-Friday 6 a.m. - 7:30 p.m., Saturday 7:30 a.m. - 7:30 p.m., Sunday 8 a.m. - 7 p.m.	Fixed route: $1 base fare, $.50 discounted fare for seniors and students ADA Paratransit: $2 per ride	19 medium-duty buses (all wheelchair accessible), 3 other vehicles

Agency Name	Agency Type	Services Provided	Population Served	Service Area	Service Time	Cost to Ride	Vehicle Types
Meals on Wheels Montgomery County	Not-for-profit	Transportation services (door-to-door), nutrition, veterans services, aging population services	Seniors, persons with disabilities	Montgomery County	N/A	N/A	8 standard/converted 8-15 passenger vans (all wheelchair accessible)
Mounting Horizons	Not-for-profit	Transportation services, social services, employment/ job placement, veterans services, aging population services, independent living skills, advocacy, leadership, peer support, information and referrals	Persons with disabilities	Harris County, Galveston County, and surrounding counties	Monday-Thursday 8 a.m. - 6 p.m., Friday 8 a.m. - 12 p.m. (noon)	N/A	4 standard/converted 8-15 passenger vans, 1 light-duty bus, all wheelchair accessible
On the Road Lending	Not-for-profit	Transportation	Low-income	13-county region	N/A	N/A	N/A
Paler Transport	For-profit	Transportation services (door-to-door, non-emergency medical)	General public	Harris County, Fort Bend County	24 hours a day, 7 days a week, 365 days a year	Varies	2 sedans/station wagons, 1 minivan (wheelchair accessible)
Senior Services of West University	Government agency	Transportation services (door-to-door), social services, aging population services, recreation/education/socialization services	Seniors	West University Place	N/A	N/A	1 sedan/station wagon, 1 standard/converted 8-15 passenger van
The Woodlands Township	Government Agency	Transportation services (Fixed route, ADA paratransit	General public	The Woodlands Township, selected destinations in Harris County including Downtown Houston, Texas Medical Center, and Greenway Plaza	Monday-Friday 5 a.m. - 9 p.m., Saturday-Sunday 2 p.m. - 6 p.m.	Long-distance fixed routes cost $13 for a round-trip, Town Center Trolley and ADA paratransit offered free of charge	6 medium-duty buses, 31 over the road coach buses (all wheelchair accessible)
Wharton County Junior College Senior Citizen Program	Not-for-profit	Transportation services (door-to-door), healthcare, social services, nutrition, aging population services	Seniors	Wharton County	N/A	Free, donations accepted	1 minivan, 3 standard/converted 8-15 passenger vans

Analysis of Survey Responses

Organizational Functions

Survey takers were asked to select their organization's key functions. The results of this question are shown in Figure 1. All but two responding organizations reported that transportation was a key function of their organization, and several agencies reported additional key functions, such as social services or aging population services.

Figure 1: Key Organizational Functions for Responding Organizations
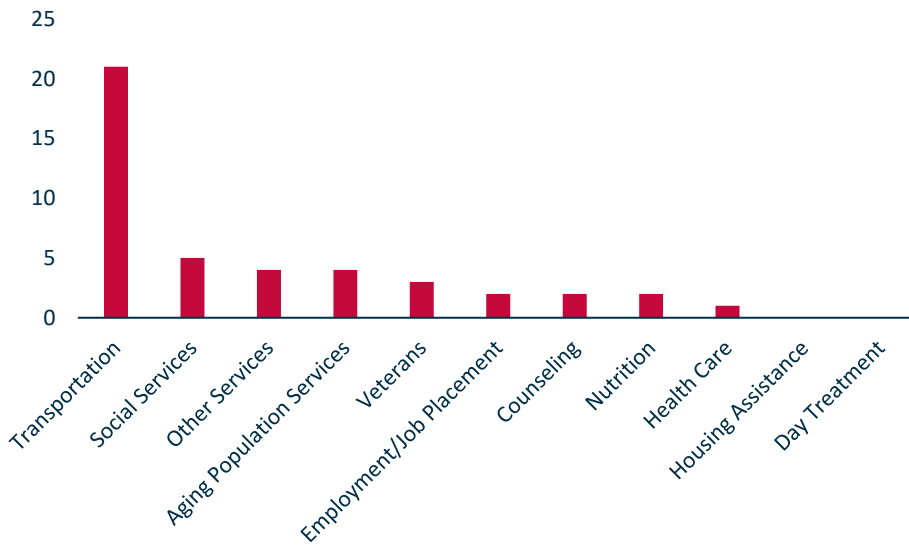
Communications and Dispatch Technologies

Survey respondents were asked to select the technologies they use to communicate with their drivers. The responses are shown in Figure 2. Fourteen of 22 respondents reported using cellular phones to communicate with their drivers.

Figure 2: Communications Technologies Used by Responding Agencies
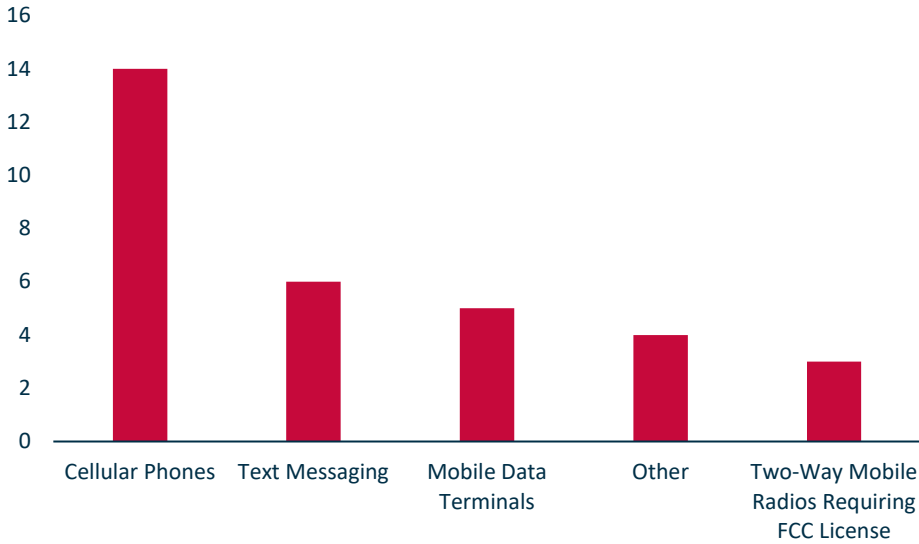
Figure 3 shows the technologies that respondents reported using for planning and dispatching services. Eleven respondents reported using computer-assisted dispatching technologies while six reported using automatic vehicle location/GPS and five reported using automated vehicle routing/scheduling.

Figure 3: Planning and Dispatching Technologies Used by Responding Agencies
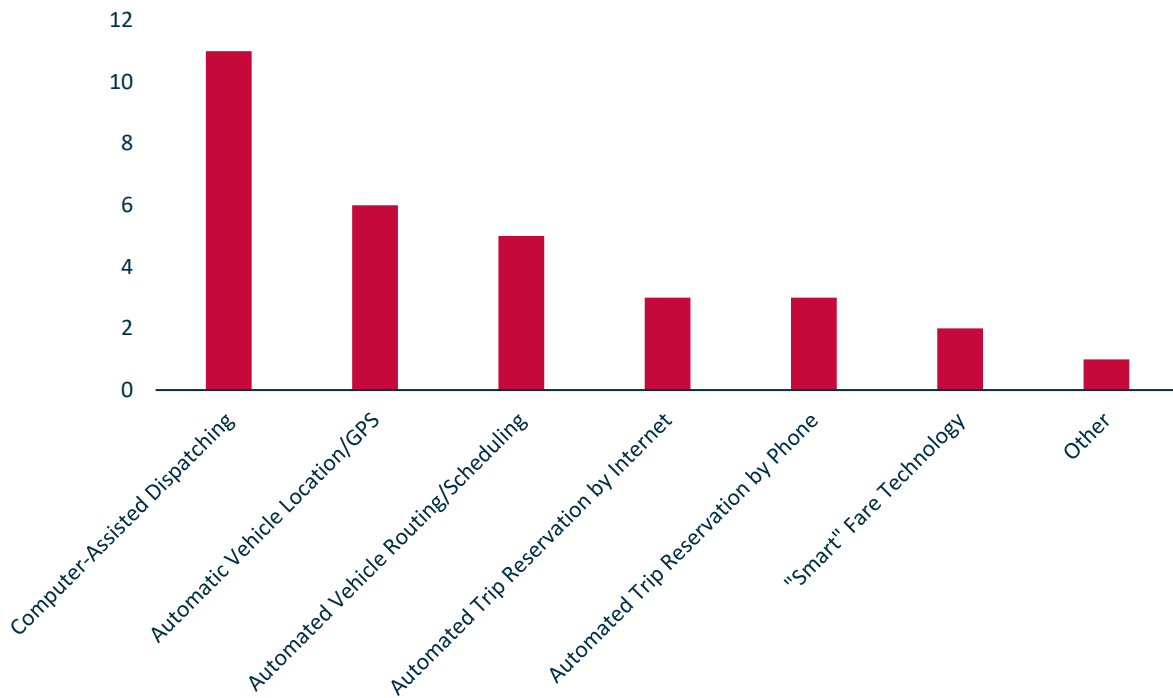
Expenditures and Revenues

Respondents were asked to list the amount of money they spend annually on various forms of transportation subsidies. As shown in Figure 4, respondents spent the largest amount on travel aides and escorts, followed by gas cards, at $186,924 and $157,025, respectively (Note that given the small number of agencies responding to the survey, one provider spending a significant amount of money on a particular service can skew the results).

Agencies were also asked to report if they accept donations to help cover the cost of providing transportation services as well as whether there was a suggested donation amount and what the suggested donation amount was. Eleven respondents reported accepting donations. Of these, two reported having a suggested donation amount, and only one reported this suggested donation amount, which is $1.

Figure 4: Total Transportation Subsidies Spent by Responding Agencies
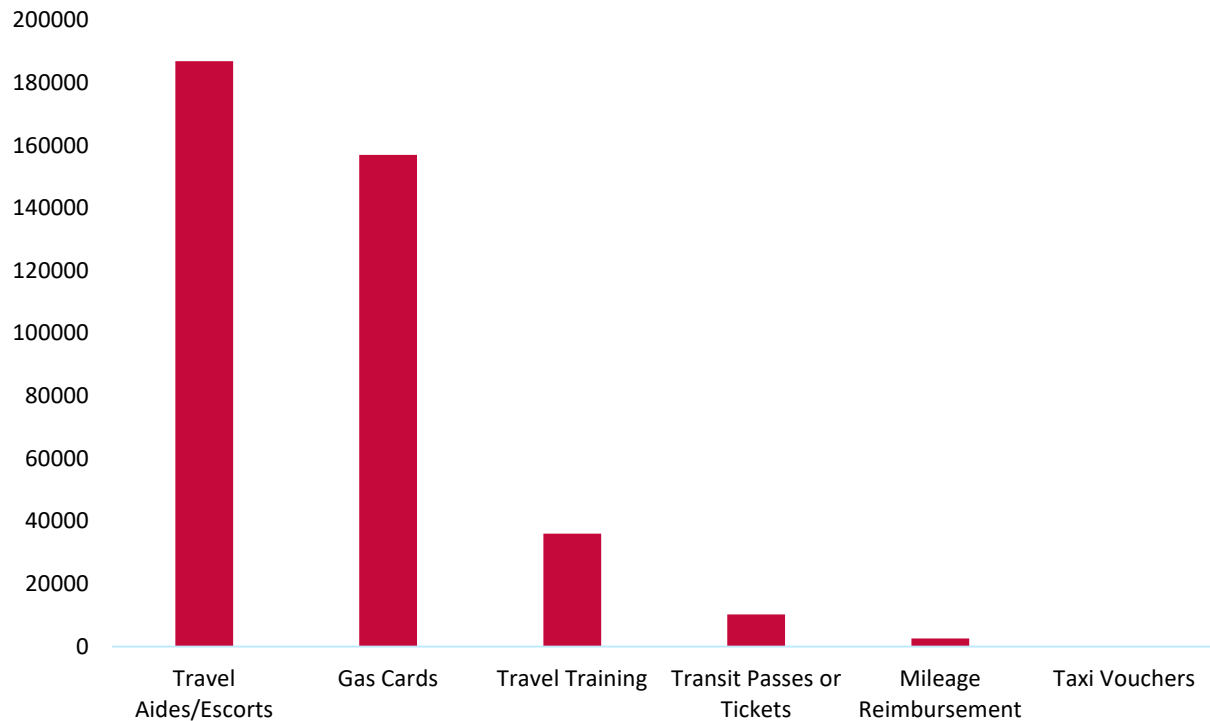
Third-Party Transportation Services

Respondents were also asked if they purchased transportation services from a third party. Only six respondents reported doing so. The dollar value of services purchased ranged widely, with one provider reporting a total spending of just $35 on third-party transportation services while another provider reported spending more than $4.1 million on third-party transportation services.

Vehicles

Respondents were asked about their vehicle fleets. Nineteen of 23 responding agencies reported having a fleet of at least one vehicle, with the largest reported fleet containing a total of 63 vehicles. Table 1 shows the total number of vehicles reported by vehicle type.

Table 1: Total Vehicles Reported by Vehicle Type

Sedans /Station Wagons	Minivans	Standard /Converted 8 To 15 Passenger Vans	Light-Duty Buses	Medium-Duty Buses	
15	35	30	9	123	
Large-Duty Buses	Small School Buses	Large School Buses	Over the Road Coach Buses	Other Vehicles	Total
35	0	0	31	10	288

The survey revealed additional information about the respondents' vehicle fleets, including:

- The majority of vehicles in the fleets of responding agencies are owned, with only 18 vehicles reported to be leased.
- The majority of vehicles reported by respondents are wheelchair accessible. All light-duty buses, large-duty buses, and over the road coach buses were reported to be accessible, as were 90% of medium-duty buses. Most vans were also reported to be wheelchair accessible.
- A total of 89 new vehicle acquisitions are planned, with new medium duty buses accounting for 35% of that total. Another 27% of planned vehicle acquisitions are vans.
- The most common reasons given for acquiring new vehicles were age and maintenance issues associated with older vehicles as well as the expectation of growth in demand for services. A few responses also referred to improved features on newer vehicles (e.g., replacing an old van that has a wheelchair ramp with a new van featuring a wheelchair lift).
- The sources of funding planned to be used to acquire new vehicles were government funding (including TxDOT funding as well as federal funding through the FTA or the CARES Act) along with fundraising and donations.

Local Coordination Efforts

Respondents were asked to subjectively rate the level of sustained support for coordinated transportation planning among elected officials and other leaders in the community they serve on a one to five scale, with a rating of "one" being very low and a rating of "five" being very high. The results are shown in Table 2.

Table 2: Rating of Local Transportation Coordination Efforts by Survey Respondents

One (Very Low)	Two (Low)	Three (Moderate)	Four (High)	Five (Very High)	Average Rating
4	4	7	8	0	2.83

It is worth noting that there was a split between public transit providers and other respondents in their ratings: Only two of eight public transit provider respondents rated coordination efforts below a four while only one of six for-profit transportation providers responding to the survey provided a rating above a two.

Public Transit Provider Information

There are currently 10 public transit providers in the 13-county region. Their service areas are shown in Figure 5 below. A brief description of each provider, including the types of services offered and their hours of service, follows. Note that Chambers County does not have a public transit provider.
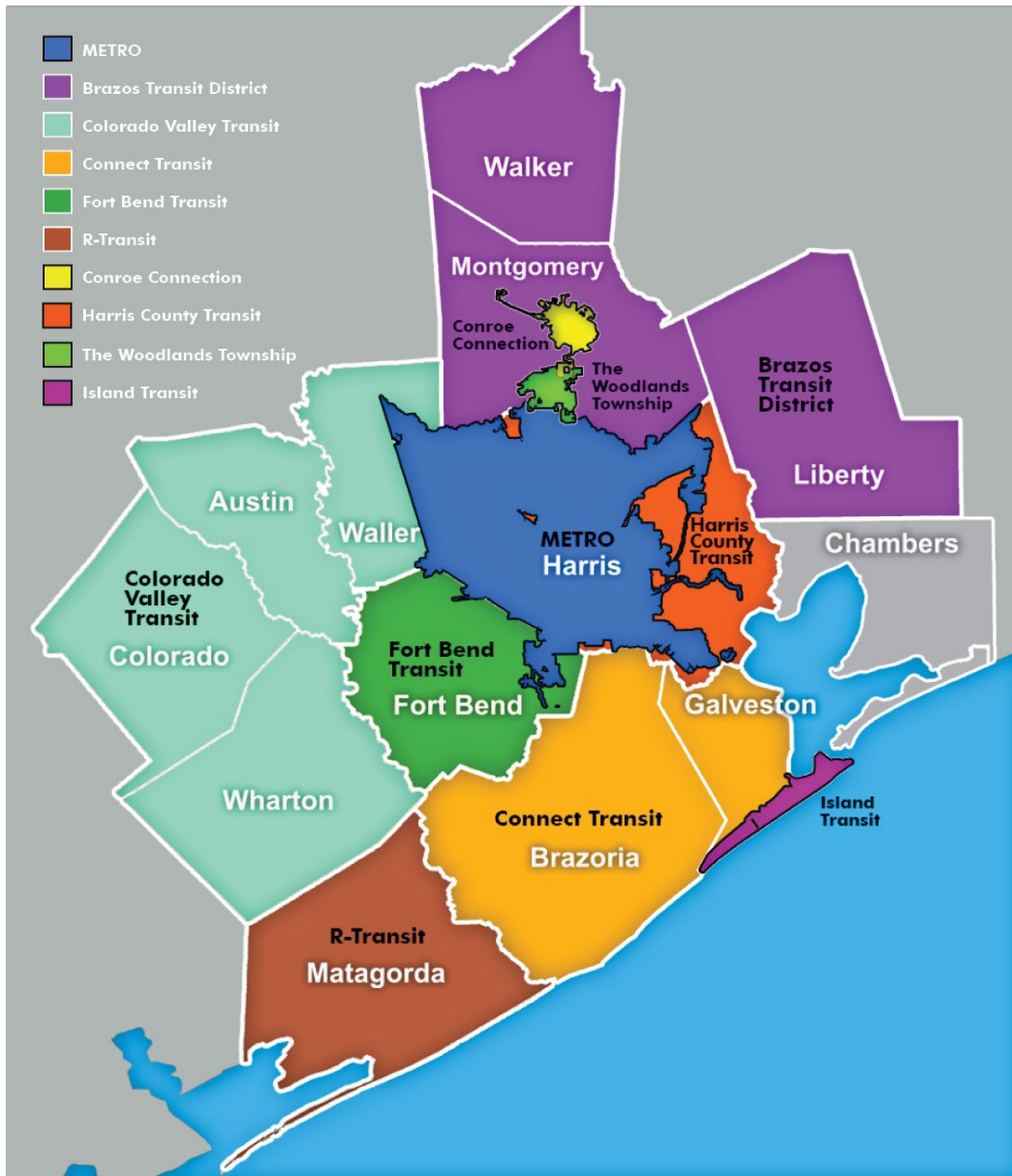
Brazos Transit District

The Brazos Transit District is a multi-county urban-rural transit district that includes three counties within the Houston-Galveston region. It is based in Bryan, Texas. Fixed route transit service operates in urbanized areas of Liberty, Dayton, Ames, and Cleveland in Liberty County. Demand response service operates in all of Walker County and non-urbanized parts of Montgomery and Liberty County. Fixed route services operate 9 a.m. to 4 p.m., Monday through Friday. All demand-response services operate Monday through Friday: Demand response service in the city of Cleveland operates from 6 to 10 a.m. and 2 to 6 p.m., and demand response service in Montgomery and Walker counties runs from 6 a.m. to 6 p.m.

City of Conroe

The city of Conroe (branded as "Conroe Connection") is an urban transit provider that offers hourly service on four fixed routes, ADA complementary demand response service, and daily commuter service to Houston. Conroe provides service within its city limits as well as commuter service to the Houston Central Business District and the Texas Medical Center in partnership with METRO. Service is available Monday through Friday, 7 a.m. to 7 p.m.

Colorado Valley Transit

Colorado Valley Transit is a rural transit district serving Wharton, Waller, Colorado, and Austin counties within the 13-county region. Deviated route services are offered in selected communities in Wharton, Colorado, and Austin counties. Individuals living in Wharton, Colorado, or Austin counties, but outside these communities, are eligible for demand response service, as are all individuals living in Waller County. All service runs between 7 a.m. to 6 p.m.

Fort Bend County Transit

Fort Bend County Transit is an urban/rural transit district that serves all of Fort Bend County with demand response service. It provides commuter bus service to the Texas Medical Center, the Uptown/Galleria District and the Greenway Plaza District. Demand-response service is available on weekdays only, from 8 a.m. to 5 p.m. Commuter services also operate only on weekdays: Span of service varies based on route, with some routes starting as early as 4:30 a.m. and operating as late as 9 p.m.

Gulf Coast Transit District

The Gulf Coast Transit District assumed responsibility for transit service (branded as "Connect Transit") in parts of Galveston and Brazoria counties beginning on May 1, 2021. Service types and availability vary by location. Fixed route and ADA paratransit services are available in the Texas City-La Marque Urbanized Area (including Dickinson, San Leon, and Bacliff) in Galveston County as well as in the Lake Jackson-Angleton Urbanized Area (including Clute and Freeport) in Brazoria County. Weekday commuter service is provided between League City and Galveston Island. Rural areas of Brazoria and Galveston have demand response service only. Fixed route service operates Monday through Friday, 6 a.m. to 6 p.m., as well as 8 a.m. to 6 p.m. on Saturdays. Demand response service operates 7 a.m. to 5 p.m., Monday-Friday only.

Harris County Transit

Harris County Transit provides fixed route, ADA paratransit, commuter service, and demand response service in parts of eastern Harris County that are outside the METRO service area. Fixed route and ADA paratransit service are available Monday through Friday, 7 a.m. to 6 p.m., and Saturdays and Sundays 8 a.m. to 6 p.m. Commuter service from Baytown is available during weekday peak periods only, with morning trips starting at 5:30 a.m. and evening service concluding by 7 p.m. Demand response taxi services are available 24 hours a day, seven days a week.

Houston METRO

The Metropolitan Transit Authority of Harris County (METRO) is by far the largest transit agency in the Gulf Coast planning region, and one of the 10 largest urban transit agencies in the United States. Spanning 15 cities, including Houston, METRO provides approximately 96% of the public transit ridership in the region. It is also the only public transit agency with a dedicated funding source – a 1% sales tax that it collects within its service area.

METRO offers a wide array of services. The largest service is fixed route bus transportation, followed by light rail and bus rapid transit services and commuter bus service. It also offers vanpool, ADA complementary transit service, community connectors, and bus rapid transit services. Hours of fixed route services vary, though some operate 24 hours a day, seven days a week. Commuter services operate only during weekday peak periods. Limited ADA paratransit service is available 24 hours a day, seven days a week, with full ADA paratransit service available weekdays from 5 a.m. to 12:30 a.m., Saturdays from 7 to 12:30 a.m., and Sundays from 7 a.m. to 11:30 p.m.

Island Transit

Island Transit offers fixed route and ADA paratransit services within the city of Galveston only. Fixed route transit is open to the general public while ADA paratransit services require proof of a qualifying disability. Both fixed route and ADA paratransit services operate weekdays from 6 a.m. to 7:30 p.m., Saturdays from 7:30 a.m. to 7:30 p.m., and Sundays from 8 a.m. to 7 p.m.

R Transit

R Transit offers demand response services throughout Matagorda County. The service is open to the general public but must be booked at least 48 hours in advance. Service is available Monday through Friday, 8 a.m. to 5 p.m. Limited service to Houston, Galveston, Port Lavaca, Sugar Land, and Victoria is available on Tuesday and Thursday.

The Woodlands Township

The Woodlands Township is an urban transit agency, offering a local trolley service, commuter services, and ADA paratransit services. Service is available within The Woodlands Township, with commuter service available to destinations in Houston, including the Texas Medical Center, the Houston Central Business District, and Greenway Plaza. Commuter services operate during weekday peak periods only. All other services operate seven days a week: Monday-Thursday, 11 a.m. to 9 p.m., Friday-Saturday, 10 a.m. to 10 p.m., and Sunday 11 a.m. to 6 p.m.

List of Agencies Responsible for Transportation Planning in the Region

The following list contains statewide, regional, county-level, and local agencies responsible for transportation planning within any part of the 13-county region.

State and Regional Agencies

Table 3: List of State and Regional Agencies Responsible for Transportation Planning in the 13-County Region

County Governments

Table 4: List of County Government Agencies Responsible for Transportation Planning in the 13-County Regional

Name	Department Name	Address	Email/Contact URL	Phone #	Website
Houston-Galveston Area Council	Transportation/ Transportation Policy Council	3555 Timmons Lane, Suite 120 Houston, TX 77027	https://www.h-gac.com/contact/form	713-627-3200	https://www.h-gac.com/transportation-policy-council
TxDOT - Beaumont District	N/A	8350 Eastex Freeway, Beaumont, TX 77708	https://www.txdot.gov/inside-txdot/contact-us/contact-us/askAGeneralQuestion.html?issueType=Customer-Service&id=bmt-email	409-892-7311	https://www.txdot.gov/inside-txdot/district/beaumont.html
TxDOT - Bryan District	N/A	2591 N. Earl Rudder Freeway, Bryan, TX 77803	https://www.txdot.gov/inside-txdot/contact-us/contact-us/askAGeneralQuestion.html?issueType=Customer-Service&id=bry-email	979-778-2165	https://www.txdot.gov/inside-txdot/district/bryan.html
TxDOT - Houston District	N/A	7600 Washington Ave., Houston, TX 77007	https://www.txdot.gov/inside-txdot/contact-us/contact-us/askAGeneralQuestion.html?issueType=Customer-Service&id=hou-email	713-802-5000	https://www.txdot.gov/inside-txdot/district/houston.html
TxDOT - Yoakum District	N/A	403 Huck St., Yoakum, TX 77995	https://www.txdot.gov/inside-txdot/contact-us/contact-us/askAGeneralQuestion.html?issueType=Customer-Service&id=ykm-email	361-293-4300	https://www.txdot.gov/inside-txdot/district/yoakum.html

Name	Department Name	Address	Email	Phone #	Website
Austin County	Road & Bridge Office	1 E. Main St., Bellville, TX 77418	MLamp@AustinCounty.com	979-530-5076	N/A
Brazoria County	Community Development/ Housing & Urban Development	111 E. Locust St., Angleton, TX 77515	jenniferc@brazoria-county.com	979-849-5711	https://www.brazoriacountytx.gov/departments/housing-&-urban-development

Name	Department Name	Address	Email	Phone #	Website
Chambers County	Road & Bridge Department	201 Airport Road, Anahuac, TX 77514	cwtaylor@chamberstx.gov	409-267-2708	https://www.co.chambers.tx.us/page/road_&_bridge
Colorado County	Engineering	2205 Walnut St., Columbus, TX 78934	klowe@fscinc.net	979-732-3114	http://www.co.colorado.tx.us/page/colorado.Engineer
Fort Bend County	Community Development	301 Jackson St., Suite 602, Richmond, TX 77469	CommunityDevelopment @fortbendcountytx.gov	281-341-4410	https://www.fortbendcountytx.gov/government/departments-a-d/community-development
Galveston County	Engineering & Right of Way	722 Moody Ave., Galveston, TX 77550	michael.shannon@galvestoncountytx.gov	409-770-5453	
Harris County	Community Services	8410 Lantern Point Drive, Houston, TX 77054	janeen.spates@csd.hctx.net	832-927-4795	https://csd.harriscountytx.gov/Pages/default.aspx?_ga=2.59453421.1543464155.1642527814-280393201.1638820587
Liberty County	Permitting & Inspection	624 Fannin St., Liberty, TX 77575	N/A	936-336-4560	https://www.co.liberty.tx.us/page/liberty.Licenses
Matagorda County	Emergency Management	2200 7th St., Bay City, TX 77414	acampos@co.matagorda.tx.us	979-323-0707	http://www.co.matagorda.tx.us/page/matagorda.Emergency
Montgomery County	Community Development	501 N Thompson St., # 200, Conroe, TX 77301	Rebecca.Ansley@mctx.org	936-538-8060	https://www.mctx.org/departments/departments_a_-_c/community_development/index.php
Walker County	Planning & Development	1313 University Ave., Huntsville, TX 77340	kglover@co.walker.tx.us	936-436-4939	https://www.co.walker.tx.us/department/index.php?structureid=28
Waller County	County Engineer	775 US-290 BUS, Hempstead, TX 77445	y.scott@wallercounty.us	979-826-7670	https://www.co.waller.tx.us/page/ParksTrailsSpace
Wharton County	Permits & Inspections	100 S. Fulton St., Wharton, TX 77488	monica.martin@co.wharton.tx.us	979-532-8587	http://www.co.wharton.tx.us/page/wharton.PermitsInspections911Addressing

County Seats

Name	Department Name	Address	Email	Phone #	Website
City of Bellville	Permits & Inspections	30 S. Holland St., Bellville, TX 77418	brath@cityofbellville.com	979-865-3136	http://www.cityofbellville.com/page/city.permits_inspections
City of Angleton	Development Services	121 S. Velasco St., Angleton, TX 77515	wreeves@angleton.tx.us	979-849 4364	https://angleton.tx.us/133/Development-Services-Department
City of Anahuac	Building & Planning	501 Miller St., Anahuac, TX 77514	k.kathan@anahuac.us	409-267-6681	https://anahuac.us/departments/building-&-planning/
City of Columbus	Code Enforcement/Public Works	605 Spring St., Columbus, TX 78934	drw89@columbustexas.net	979-732-2366 x 223	http://www.columbustexas.net/page/city.public_works
City of Richmond	Planning & Zoning	600 Morton St., Richmond, TX 77469	planning@richmondtx.gov	281-342-0559	https://www.richmondtx.gov/departments/planing-&-zoning
City of Galveston	Planning & Development Division	3015 Market St., Galveston, TX 77550	planning@galvestontx.gov	409-797-3660	https://www.galvestontx.gov/601/Planning-Development-Division
City of Houston	Planning & Development	611 Walker St., 6th Floor, Houston, TX 77002	planningdepartment@houstontx.gov	832-393-6600	http://www.houstontx.gov/planning/
City of Liberty	Community Development	1829 Sam Houston St., Liberty, TX 77575	N/A	936-334-7118	https://www.cityofliberty.org/community-development-department-permitslicensing
City of Bay City	Community Development	1901 5th St., Bay City, TX 77414	jrussell@cityofbaycity.org	979-245-8081	https://www.cityofbaycity.org/177/Community-Development
City of Conroe	Community Development	300 W. Davis St., Conroe, TX 77301	nmikeska@cityofconroe.org	936- 522-3600	https://www.cityofconroe.org/departments/public-works-home-page/planning
City of Huntsville	Planning Division	448 TX-75, Huntsville, TX 77320	rkader@huntsvilletx.gov	936-294-5782	https://www.huntsvilletx.gov/175/Planning
City of Hempstead	Planning & Zoning Commission	635 US-290 BUS, Hempstead, TX 77445	N/A	979-826-2486	https://www.hempsteadcitytx.com/city_government/boards____committees/planning____zoning_board.php
City of Wharton	Planning & Development	1924 N. Fulton St., Wharton, TX 77488	gteves@cityofwharton.com	979-532-2491 x 238	http://www.cityofwharton.com/page/Community%20Development

Comprehensive Assessment of the Public's Unmet Transportation Needs, Assessment of Overlaps and Gaps in the Delivery of Transportation Services, and Gap Analysis Regional Needs Assessment

Introduction

This section identifies and evaluates the Houston-Galveston region's transportation needs, with particular focus on the needs of key populations. The needs assessment serves as a building block for the gap analysis. Developing an understanding of existing transportation needs in the region is a prerequisite for finding the gaps in the region's transportation network, as those gaps can be best understood as unmet transportation needs. The needs assessment ensures that this plan addresses the most important gaps in the region's transportation network by providing a strong foundational understanding of the strengths and opportunities for improvement for transportation options in the region.

Regional Demographics

The Gulf Coast region is both populous and growing rapidly. In 2019, the most recent year for which data is available, the 13-county region had 7,056,034 people. At the center of the region is Houston, which lies within Harris County and has 4,646,630 people, or 65% of the region's population. Harris County and the seven counties with which it shares a border (the eight-county region for which the Houston-Galveston Area Council serves as the Metropolitan Planning Organization) are home to 97% of the region's population. In addition to Harris, these counties include Brazoria, Chambers, Fort Bend, Galveston, Liberty, Montgomery, and Waller. The remaining five counties in the region – Austin, Colorado, Matagorda, Walker, and Wharton – make up just 3% of the region's population and are predominantly rural.

As shown in Table 6, growth in the region is fastest in the counties surrounding Harris, most notably Chambers, Fort Bend, Montgomery, and Waller counties, which all have experienced population growth of more than 6% since 2015[1]. While none of the five rural counties have seen a loss of population, only two have seen population growth of more than 1% since 2015. Table 7 provides a summary of other demographic categories covered in this section.

Table 6: 13-County Population Growth Rates by County

County	2019 Population	2015 Population	Population Growth
Fort Bend	765,394	716,087	6.9%
Waller	51,832	48,656	6.5%
Montgomery	571,949	537,559	6.4%
Chambers	41,305	38,863	6.3%
Liberty	83,702	79,654	5.0%

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[1] 2015 American Community Survey (ACS) data was used in the previous coordinated plan. To allow a more direct comparison between versions of this plan, this data has been used here alongside 2019 ACS data.

Brazoria	360,677	346,312	4.2%
Galveston	332,885	322,225	3.3%
Harris	4,646,630	4,538,028	2.4%
Walker	72,321	70,699	2.3%
Colorado	21,224	20,870	1.7%
Austin	29,764	29,563	0.7%
Wharton	41,577	41,486	0.2%
Matagorda	36,774	36,700	0.2%
13-County Total	7,056,034	6,826,702	3.4%

Table 7: Summary Table of Selected Demographic Characteristics by County

County	2019 Population	Percent of Population 65 years or Older (2019)	Percent of Population Under 25 (2019)	Percent of Population Aged 18-64 with a Disability (2019)	Percentage of Persons Speaking English Less than Very Well
Harris	4,646,630	10.2%	36%	7.7%	19%
Fort Bend	765,394	10.6%	36%	5.5%	12%
Montgomery	571,949	12.8%	35%	7.8%	7%
Brazoria	360,677	11.6%	35%	7.1%	7%
Galveston	332,885	13.9%	33%	10.6%	6%
Liberty	83,702	13.0%	35%	12.6%	7%
Walker	72,321	12.7%	36%	4.3%	6%
Waller	51,832	11.6%	45%	10.6%	11%
Wharton	41,577	16.6%	35%	12.1%	9%
Chambers	41,305	10.9%	37%	8.1%	5%
Matagorda	36,774	16.3%	34%	12.2%	9%
Austin	29,764	18.7%	32%	12.3%	8%
Colorado	21,224	21.6%	32%	10.2%	6%
13-County Total	7,056,034	10.9%	36%	7.7%	15%

Seniors

The percentage of the total population over the age of 65 has grown in 11 of the 13 counties, remaining flat in Chambers County and shrinking by just one-tenth of 1% in Waller County. Harris County and Fort Bend County have the smallest concentrations of seniors, with people 65 or older making up less than 10% of each county's population.

Persons with Disabilities

Adults with disabilities make up a growing proportion of residents in nine of the region's 13 counties. Four counties report at least 12% of their adult population being disabled, of which only one, Liberty County, is adjacent to Harris County.

English-Language Proficiency

In Harris County, one in five residents are reported as speaking English "less than very well," as classified by the U.S. Census Bureau – the highest percentage of any county in the region. Waller and Fort Bend counties each have just over one in 10 of their residents speaking English less than very well. In every other county, this proportion stands between 5% and 9%.

Race and Ethnicity

Figure 6 shows the racial and ethnic breakdown of the Gulf Coast region. Every single county in the region has at least two racial or ethnic groups comprising at least 20% of the county's population. The most diverse counties by this measure are Harris and Fort Bend.

Figure 6: Racial and Ethnic Population Breakdown by County
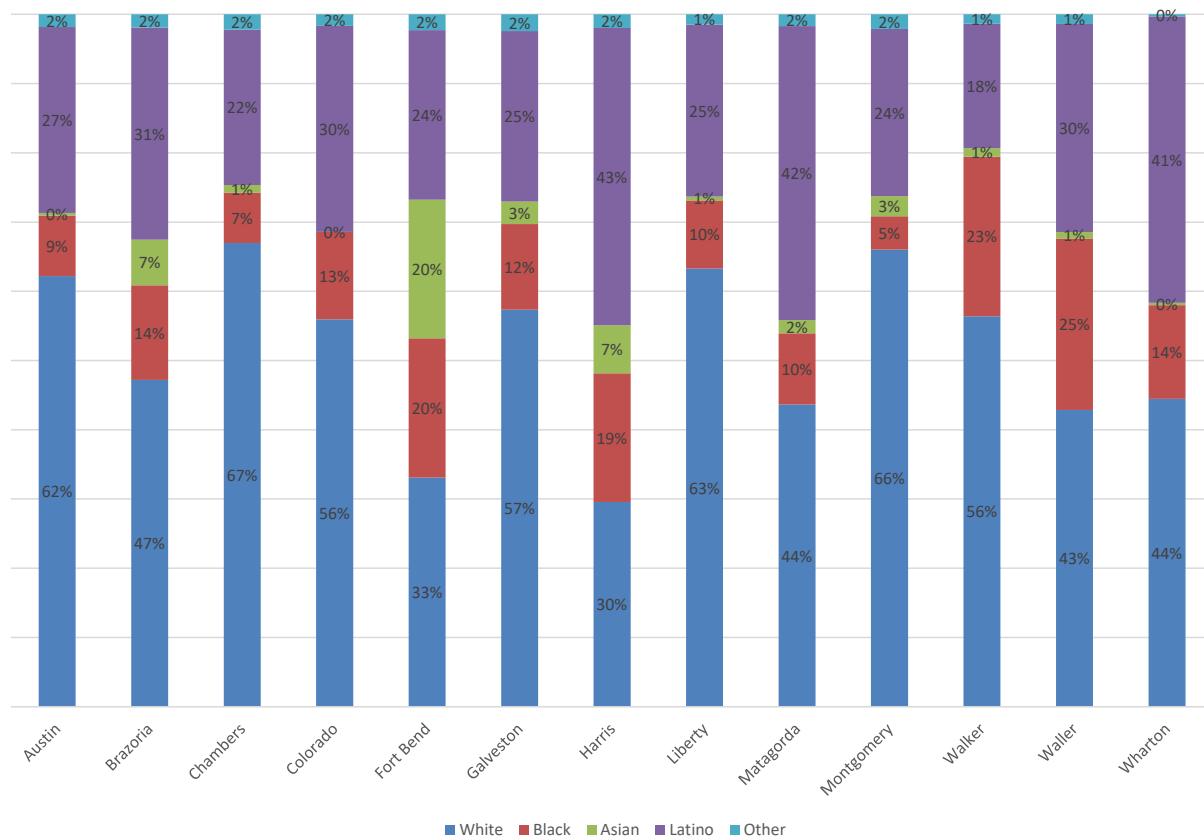
Current Transit Availability

Within the 13-county region, "fixed route transit" services vary. There are areas in which frequent fixed route transit is already provided, areas with limited fixed route service, and areas with no fixed route transit at all. For the purposes of this analysis, "fixed route transit" includes local bus

services, commuter bus services, and other park-and-ride based bus services as well as light rail services operated by Houston METRO. Analyzing the availability of fixed route service, especially in communities most likely to need public transportation, can provide important information about the demand for transportation services in the 13-county region. In this section, these analyses are performed spatially. Many of the region's highest-population census tracts have little or no fixed route transit access, as shown in Figure 7 and Figure 8.

Figure 7: Total Population by Census Tract
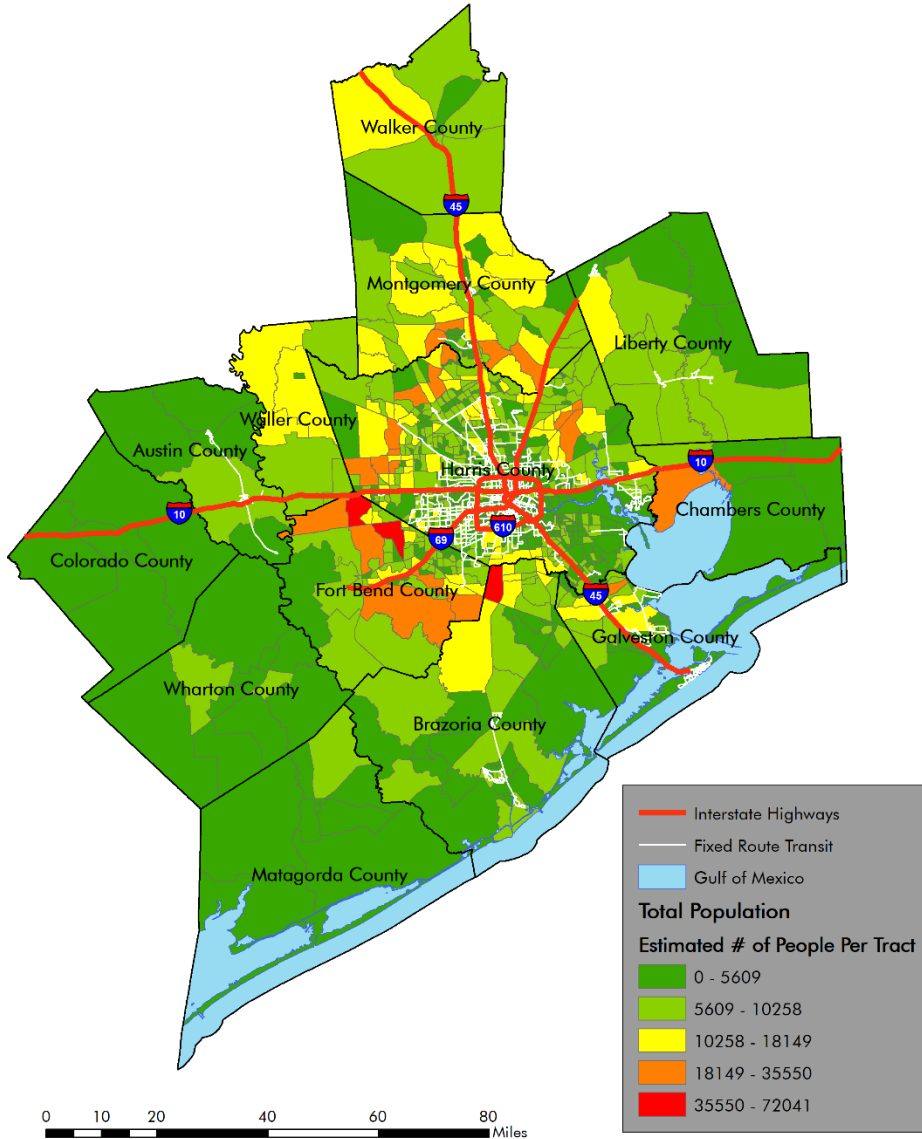
Total Population by Census Tract

Total Population in Harris County Census Tracts

Legend:

— Interstate Highway
— Fixed Route Transit

Estimated Total Population
- 0 - 3926
- 3926 - 6547
- 6547 - 10628
- 10628 - 18149
- 18149 - 29605

0   5   10   20   30   40   Miles
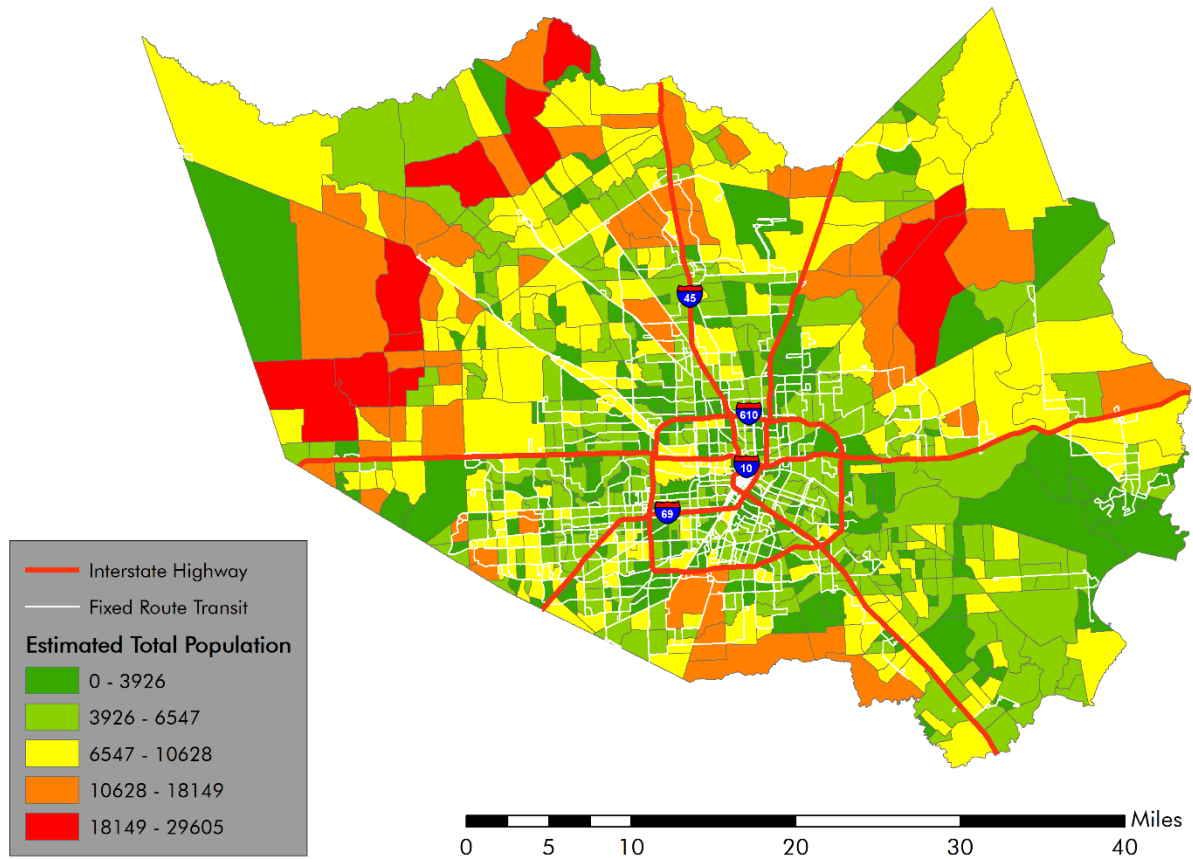
Seniors

Outside of Harris County, there are also large populations of seniors in the north part of the region – in Walker and Montgomery counties – as well as in areas of Fort Bend and Brazoria counties near their borders with Harris County, as shown in Figure 9. Within Harris County, notable concentrations of seniors can be found in the northeast and northwest of the county, as shown in Figure 10. Many of these areas have little or no fixed route service.

Figure 9: Senior Population by Census Tract
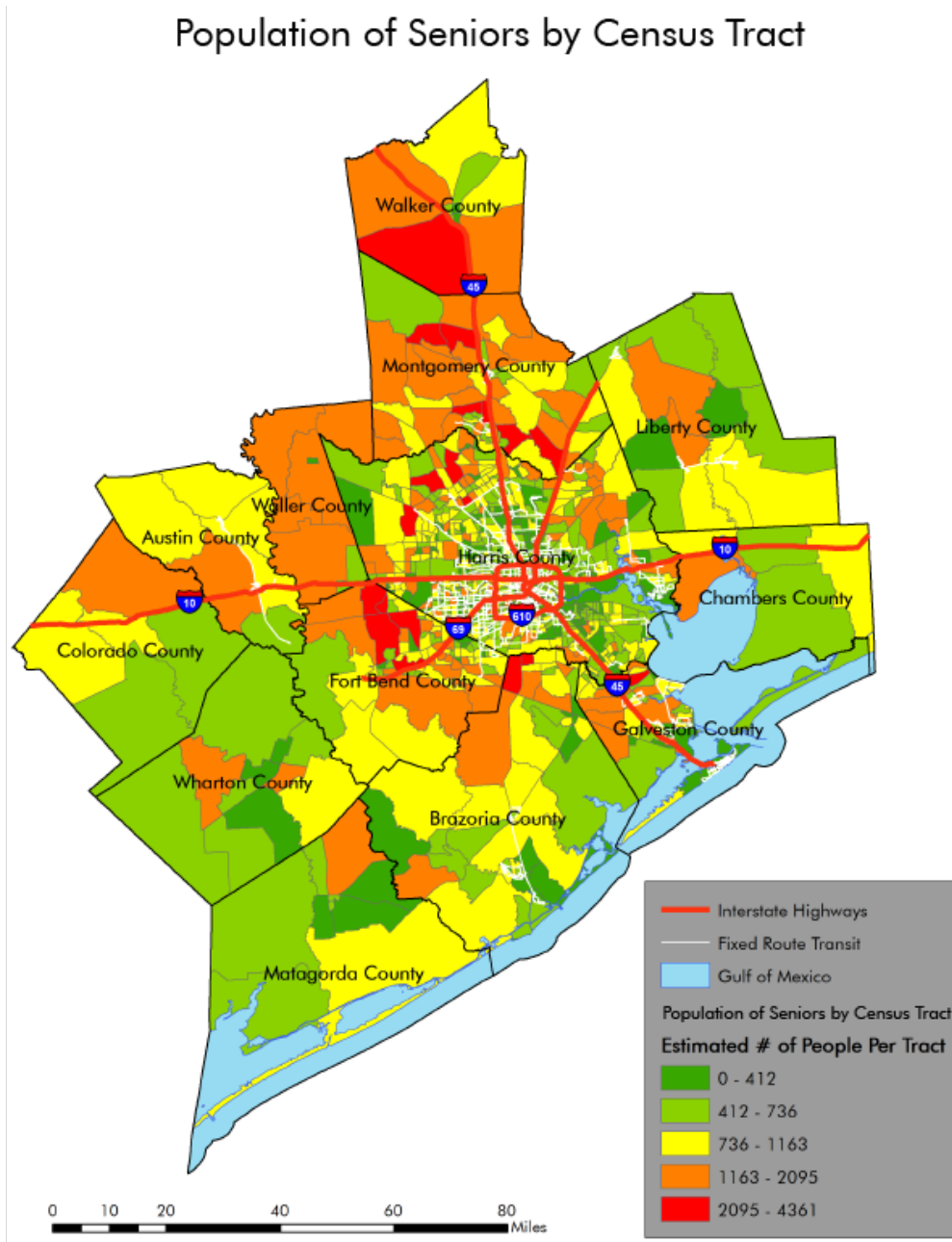
Population of Seniors by Census Tract

Total Senior Population in Harris County Census Tracts

Legend:
- Interstate Highways
- Fixed Route Transit

Total Senior Population in Harris County Census Tracts
- 0 - 407
- 407 - 717
- 717 - 1080
- 1080 - 1742
- 1742 - 3000

Miles
0   5   10   20   30   40
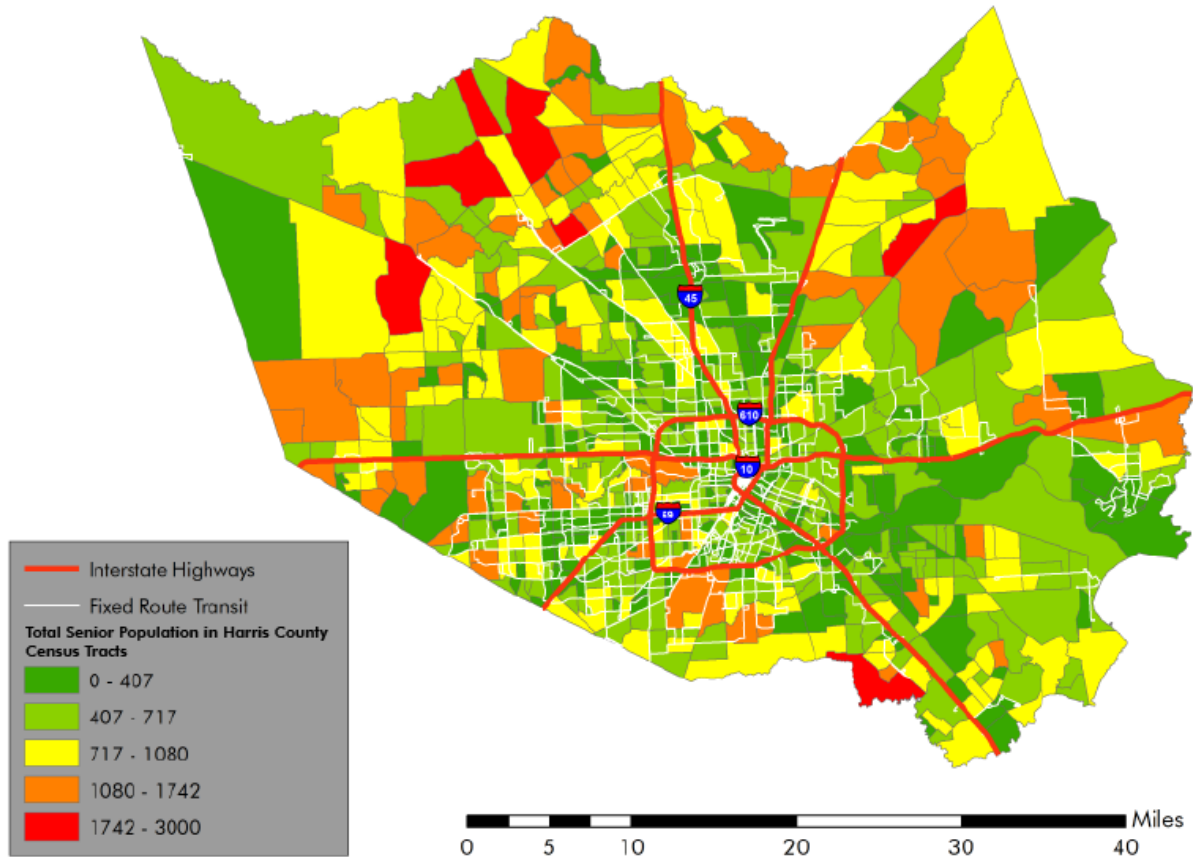
Persons with Disabilities

Individuals with disabilities are disproportionately located in areas with little or no fixed route service. Outside Harris County, these areas include parts of Waller, Montgomery, and Liberty counties as well as Fort Bend, Brazoria, and Matagorda counties, as shown in Figure 11. Within Harris County, these areas are at the county's northern, eastern, and southern fringes, as shown in Figure 12.

Figure 11: Population with Disability by Census Tract

Total Persons with Disabilities by Census Tract

Population of Persons with Disabilities in Harris County Census Tracts

Fixed Route Transit
Population of Persons with Disabilities in
Harris County Census Tracts

- 0 - 179
- 179 - 327
- 327 - 520
- 520 - 862
- 862 - 1492

0   5   10   20   30   40   Miles
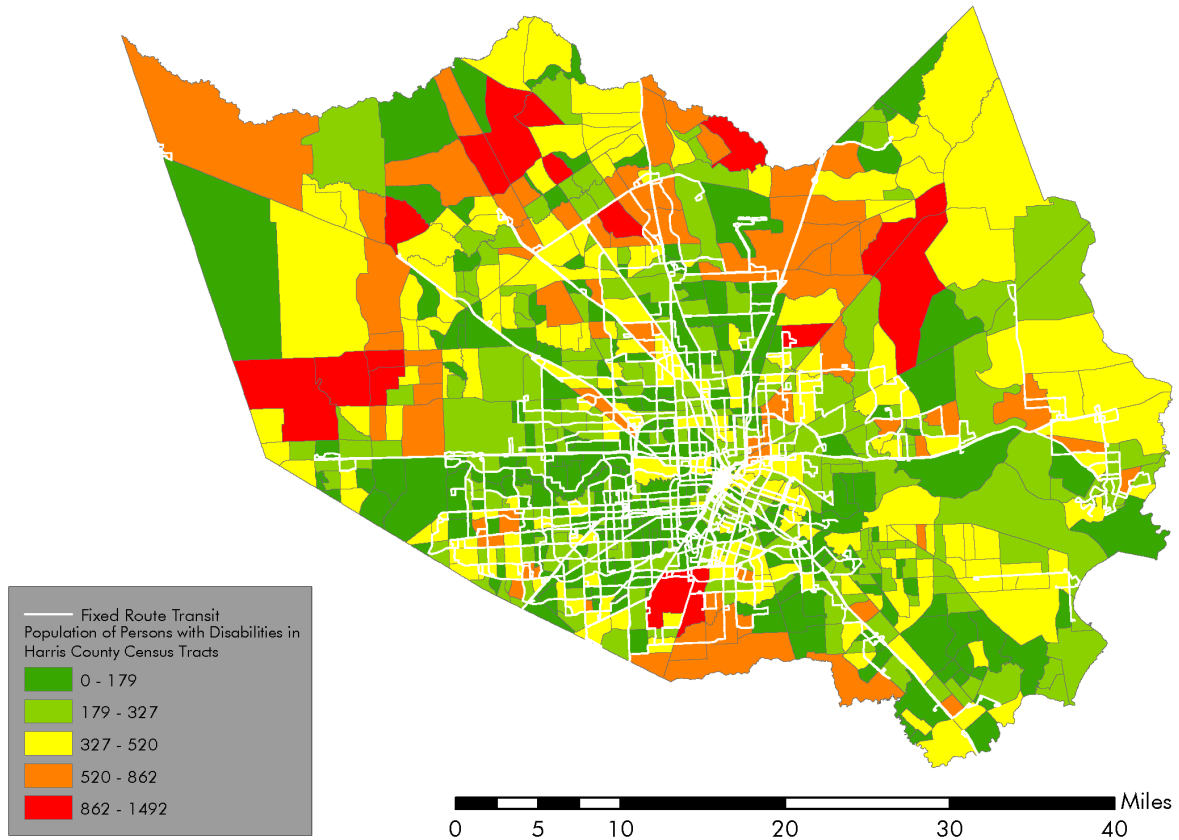
Poverty

Figure 13 and Figure 14 show the number of households with incomes below 50% of the 13-county median. This includes the 13-county region and for Harris County, respectively. These maps show that households with low incomes outside of Harris County are particularly unlikely to have access to fixed route transit, with notable concentrations in Galveston, Brazoria, and Matagorda counties. Within Harris County, lower-income households are concentrated in pockets throughout the south and southwest parts of the county, with larger swathes of lower-income areas covering much of the county's north and northeast, most of which have at least some access to fixed route service.

Figure 13: Low-Income Population by Census Tract

Total Low-Income Households by Census Tract
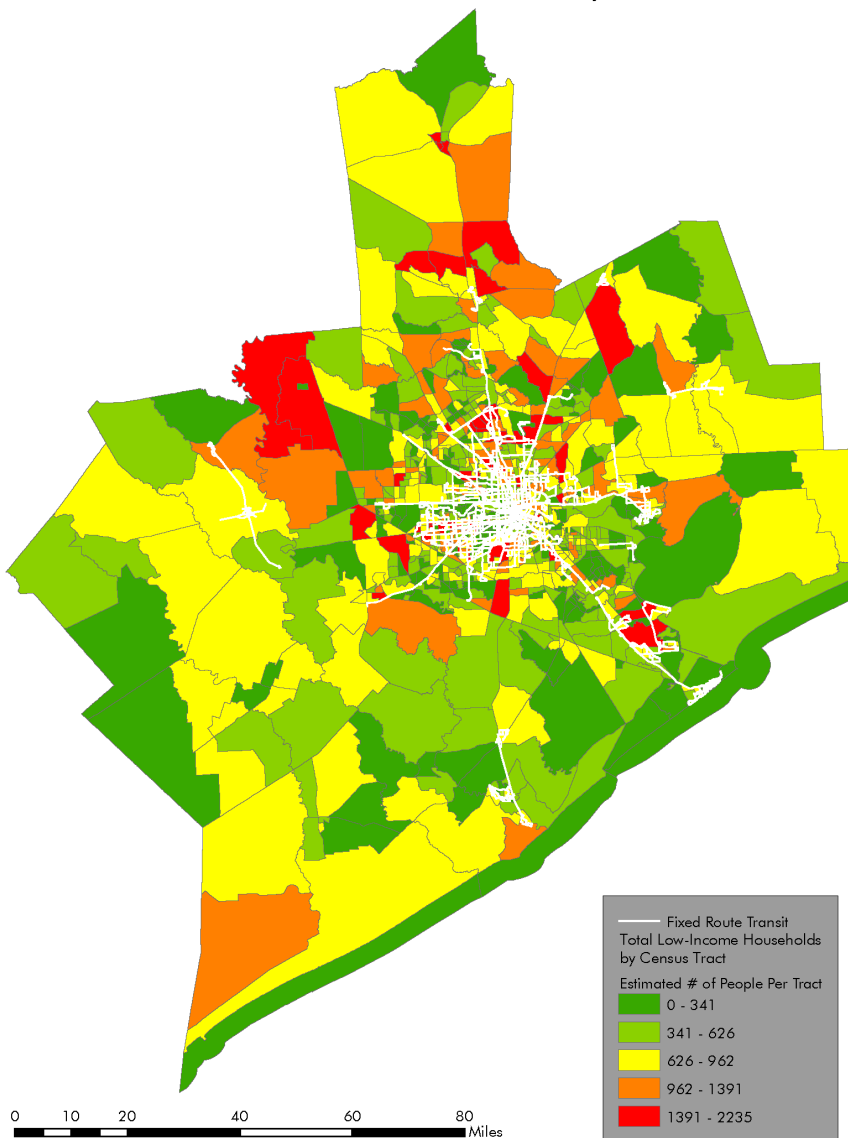
Total Low-Income Households in Harris County Census Tracts

Fixed Route Transit
Total Low-Income Households in Harris
County Census Tracts

- 0 - 328
- 328 - 608
- 608 - 931
- 931 - 1362
- 1362 - 2185

Miles
0   5   10   20   30   40
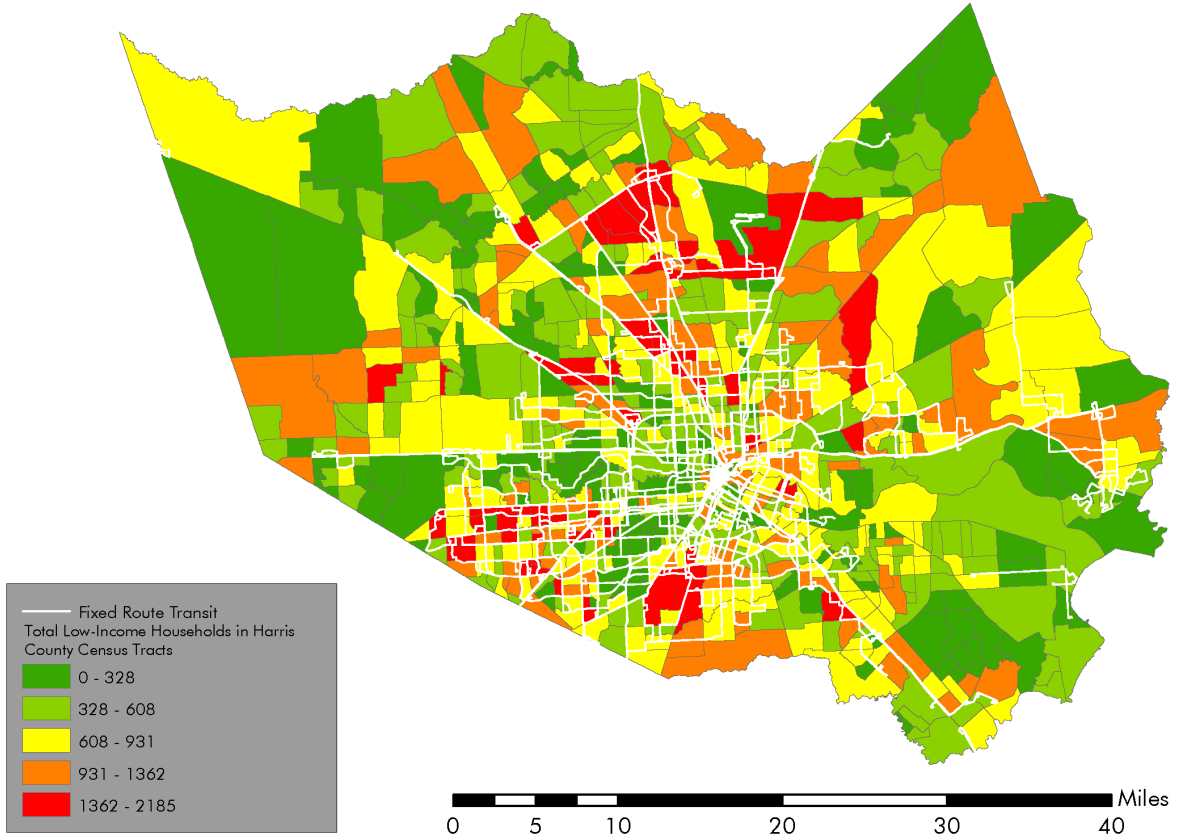
Vehicle Availability

Figure 15 shows the number of households without a car, by census tract, for the entire 13-county region while the same metric for Harris County alone is shown in Figure 16. Households without cars in Harris County are more likely to have access to fixed route transit, especially those households near the urban core while concentrations of zero-car households outside Harris County, located in places like League City and Waller and Liberty counties, are generally out of reach of fixed route transit services.

Figure 15: Households without Cars by Census Tract

Total Households w/no Vehicle by Census Tract

Total Households with No Vehicle in Harris County Census Tracts
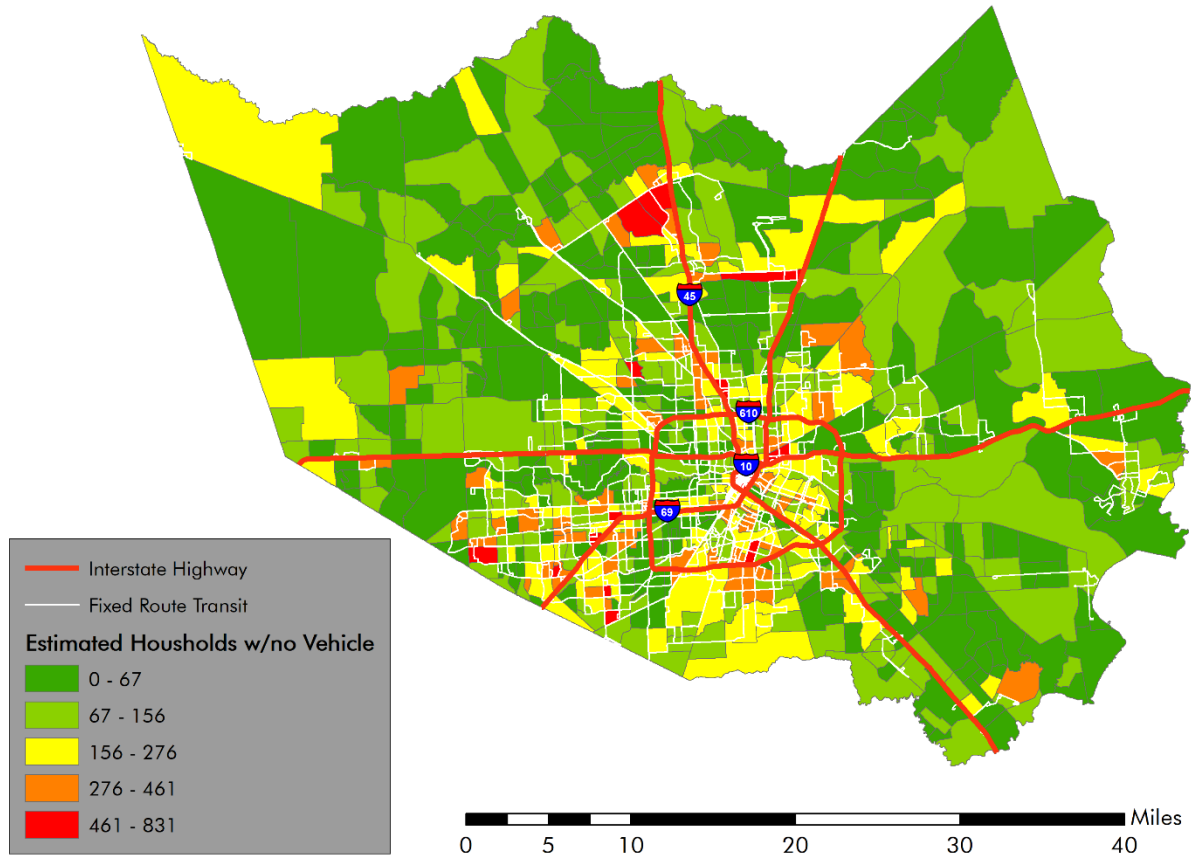
Veterans

There are notable concentrations of veterans in Montgomery, Chambers, Liberty, and Walker counties in the north and east of the region while similar concentrations are found in Fort Bend and Matagorda counties to the south of Houston, as shown in Figure 17. Additional concentrations of veterans are found at the fringes of Harris County, most notably in the north, northeast, and northwest, as shown in Figure 18. All of these areas offer little or no fixed route service.

Figure 17: Veteran Population by Census Tract
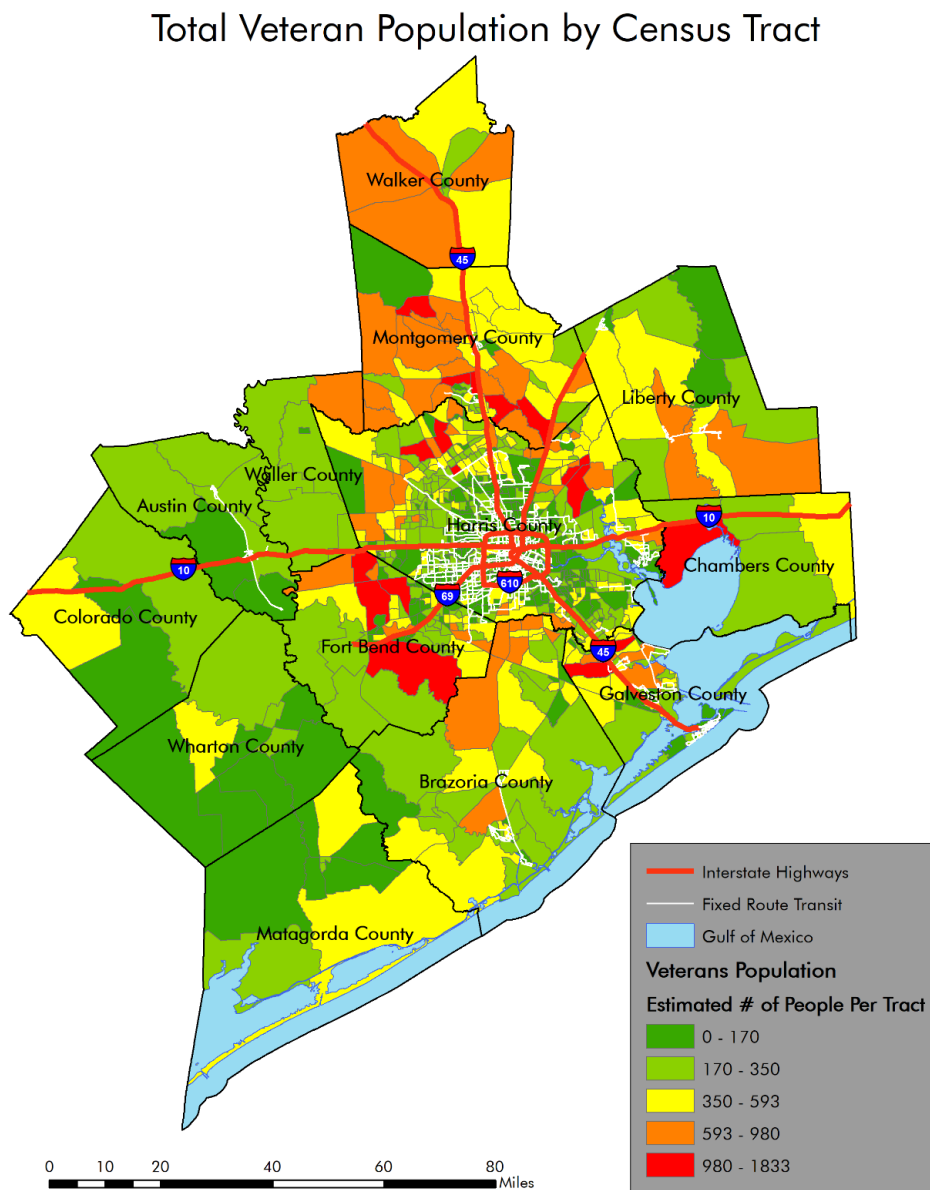
Total Veteran Population by Census Tract

Total Veteran Population in Harris County Census Tracts

Legend:
- Interstate Highway
- Fixed Route Transit

Estimated Number of Veterans
- 0 - 137
- 137 - 274
- 274 - 462
- 462 - 832
- 832 - 1714

Miles
0   5   10   20   30   40
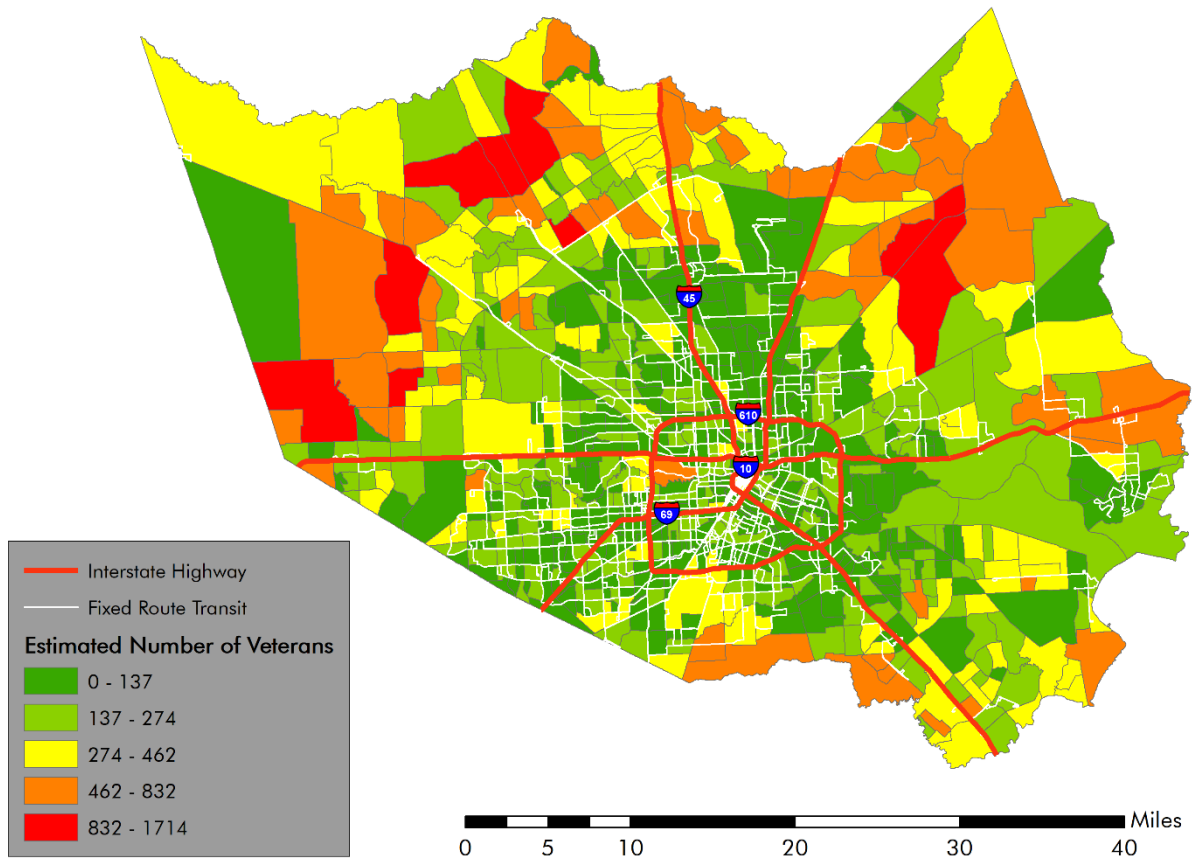
Access to Vital Services

Examining transportation need requires looking both at where the region's residents live (i.e., origins) as well as the jobs and services they need access to (i.e., their destinations). Medical care is a vital service for all residents of the region and is especially vital for several of the key populations examined in this needs assessment, such as seniors, persons with disabilities, and veterans. Figure 19 shows the distance to the nearest hospital from each census block group in the 13-county region, which provides a proxy for access to medical care. The distance is calculated from the geographic center of each census block group. Block groups in green are located close to hospitals (or contain hospitals) while block groups in red are located far from hospitals. Figure 20 shows the location of each hospital, overlaid with existing fixed route transit. These maps show that the areas farthest from hospitals can generally be found at the edges of the region, including near the Gulf of Mexico in Matagorda County, at the eastern edge of Liberty County, and parts of Waller and Austin counties. However, lack of transportation access to hospitals is a regionwide concern, as many hospitals, even some within Harris County, lack fixed route transit service of any kind.

Figure 19: Distance to Nearest Hospital by Census Tract

Distance to Nearest Hospitals
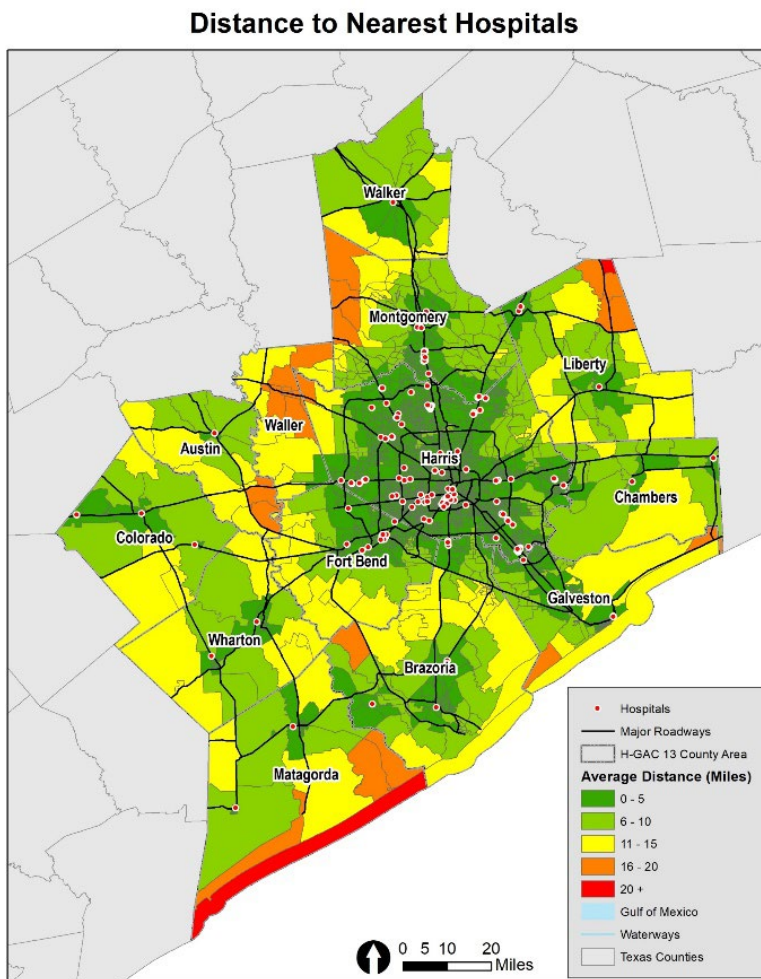
Hospitals with Fixed Route Transits
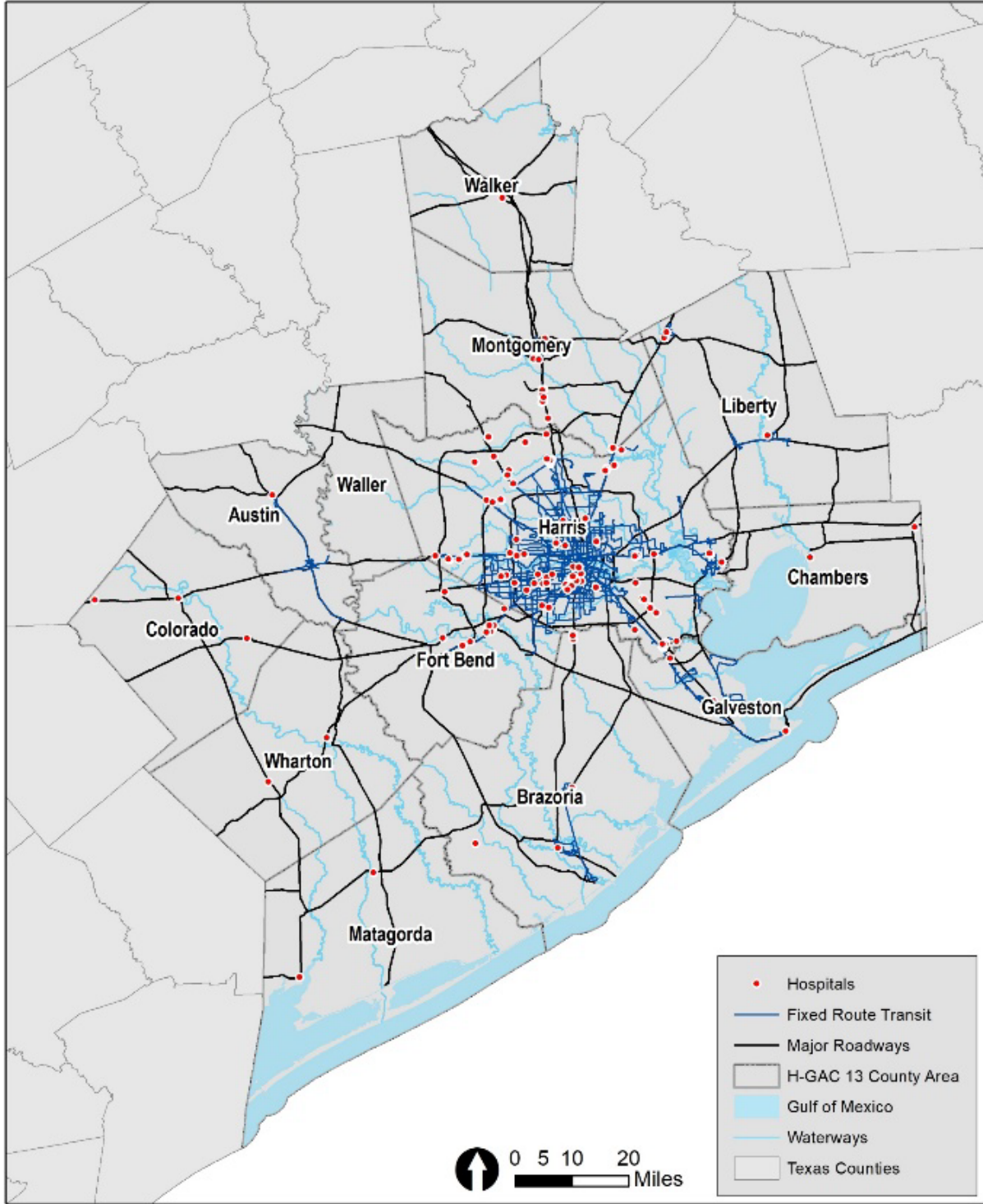
Figure 21 shows the major employers in the region in relation to the availability of fixed route transit, with major employers classified as those that provide at least 1,000 jobs in a single location. The majority of major employers, especially those concentrated in the core of the region, have at least some fixed route transit service to the work site. However, many major employers further from the region's core do not. Notable large employment sites with no fixed route transit can be found in Brazoria, Chambers, Fort Bend, Walker, and Waller counties. Some of these work locations are isolated from densely populated areas, which may limit the opportunities to provide fixed route service to these locations.

Figure 21: Major Employers with Fixed Route Transit Availability
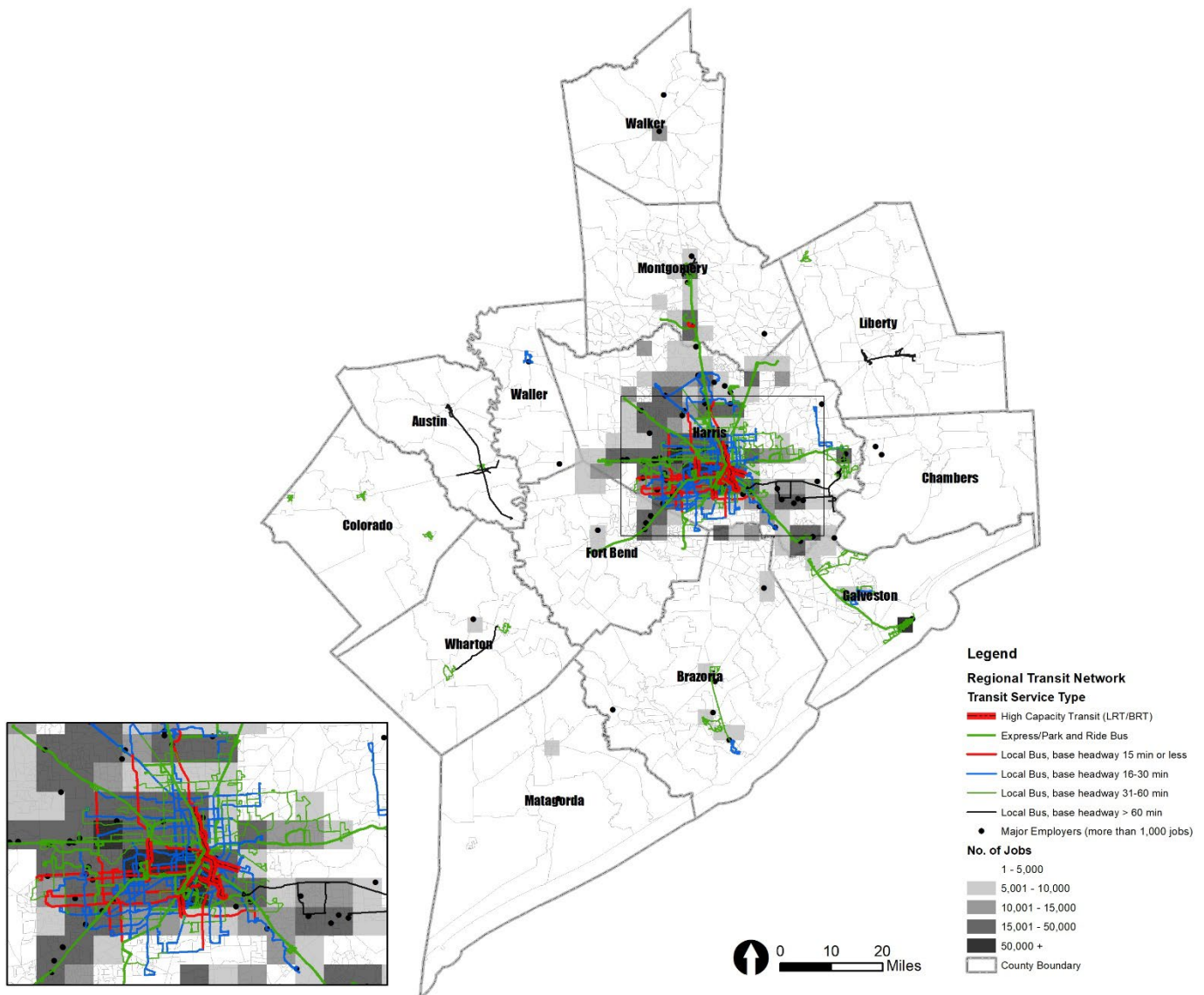
Figure 22 shows the region's colleges and universities in relation to fixed route transit services. Almost all of the region's institutions of higher education have at least some fixed route transit service, though there are a few notable exceptions. These include Sam Houston State University in Walker County, Alvin Community College in Brazoria County, and Lone Star College's CyFair campus in northwest Harris County. This indicates that even though at least some students and staff have access to their college or university campus by transit, there may still be many opportunities to improve transit access to institutions of higher education.

Figure 22: Colleges and Universities with Fixed Route Transit Availability
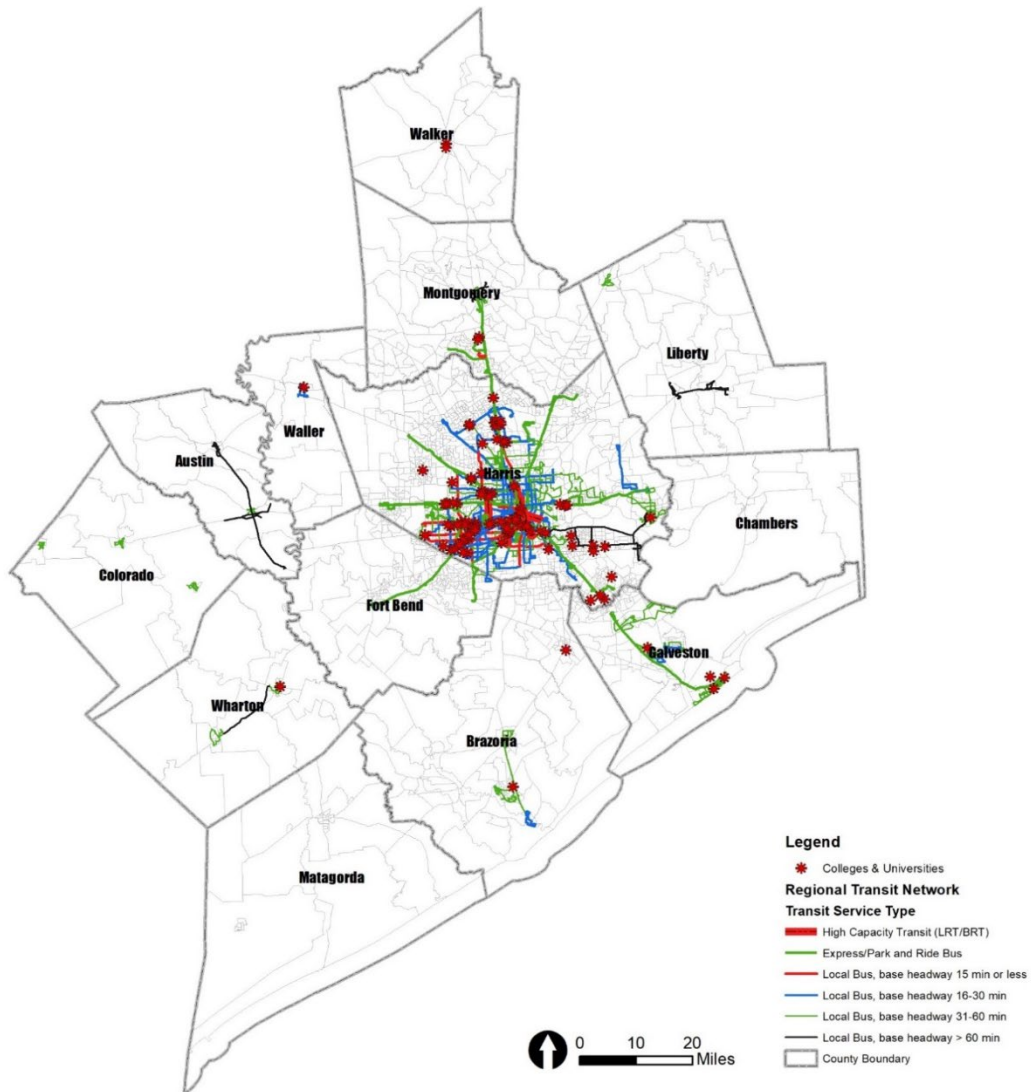
Figure 23 shows housing units built with HUD low-income housing tax credits overlaid with fixed route transit. This is used here as a proxy for the region's housing supply that is affordable to low-income families. This map shows that there are concentrations of affordable housing in every county in the region with no access to fixed route transit. As the residents of these apartments are disproportionately likely to need transportation services, this indicates that many who require low-income housing in the region may not have access to the transportation resources they need to meet their basic needs.

Figure 23: Affordable Housing with Fixed Route Transit Availability
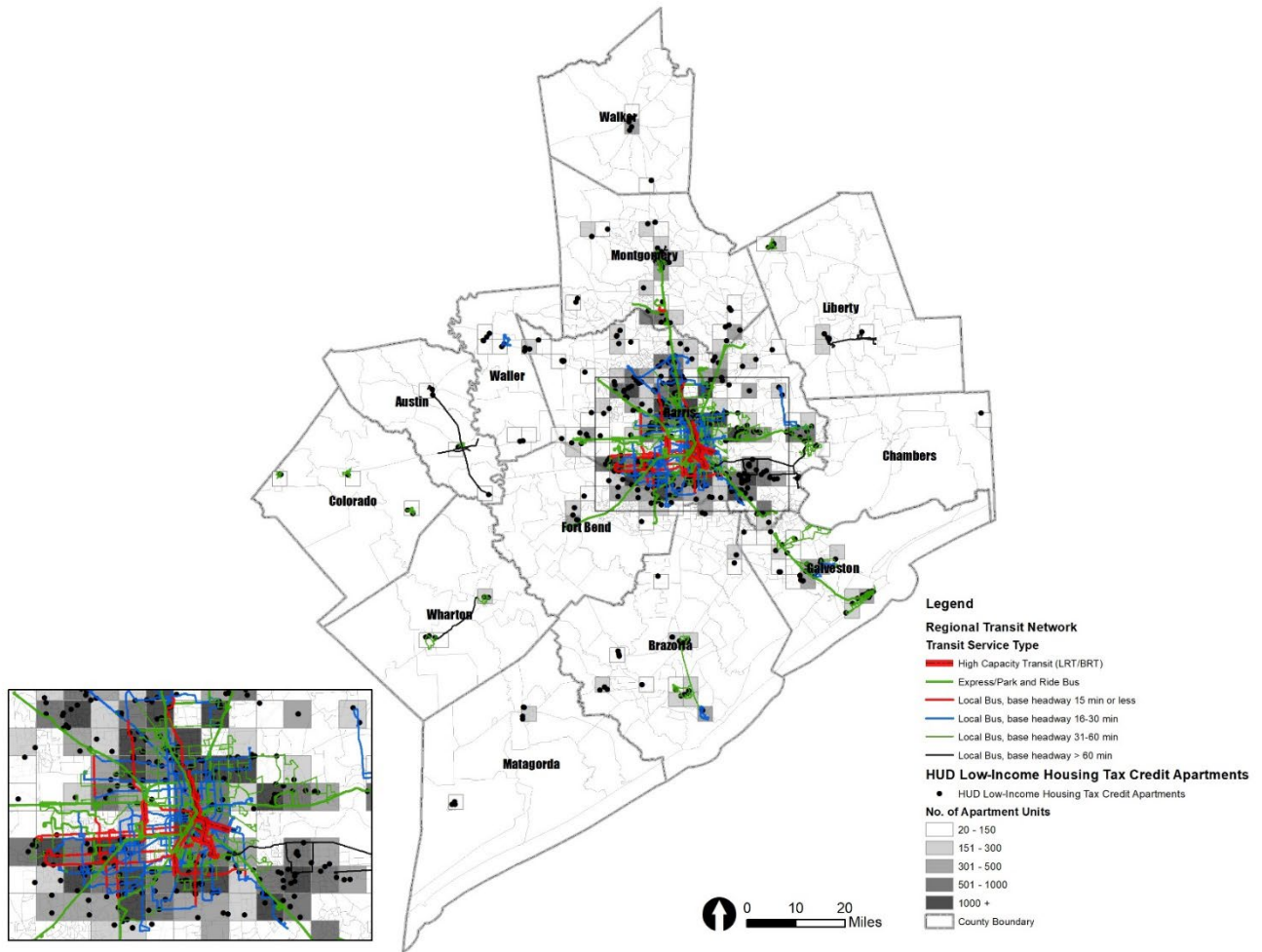
Current Travel Flows

Understanding where people are traveling is vital to understanding the public's transportation needs. In Figure 24, travel flows for commute trips are mapped using Longitudinal Employer-Household Dynamics (LEHD) data from the U.S. Census. Arrows indicate the direction of travel, with darker and larger arrows indicating higher trip volumes. This map indicates that commute travel flows are centered on Harris County, which is home to the region's biggest job centers. While this data is from 2018, the most recent year for which data is available, and therefore does not reflect changes in commute patterns related to the COVID-19 pandemic, it should still be considered reflective of overall inter-county travel demand.

Figure 24: Regional Travel Flow Map: Commute Trips

Projected Population Growth

The Houston-Galveston region has grown substantially in recent decades, and current projections suggest this growth will continue in the coming years. H-GAC develops regional growth forecasts in five-year increments. The most recent growth forecast, developed in 2018 by H-GAC's socioeconomic modeling group, indicates how the region's population may change between now and 2030. These forecasts model the region as a hexagonal grid, with each hexagon representing an area of three square miles. Figure 25 shows projected 2030 employment in the eight-county region. Employment is projected to be far more concentrated than population, with key jobs centers located in Downtown Houston, west of downtown along the I-10 and I-69 corridors, and smaller job centers found in Montgomery and Galveston counties. These forecasts indicate that future commuter transportation need will likely be centered in the central and western parts of Harris County and in the denser parts of adjacent counties.

Figure 25: Projected Employment Density, Eight-County Region, 2030
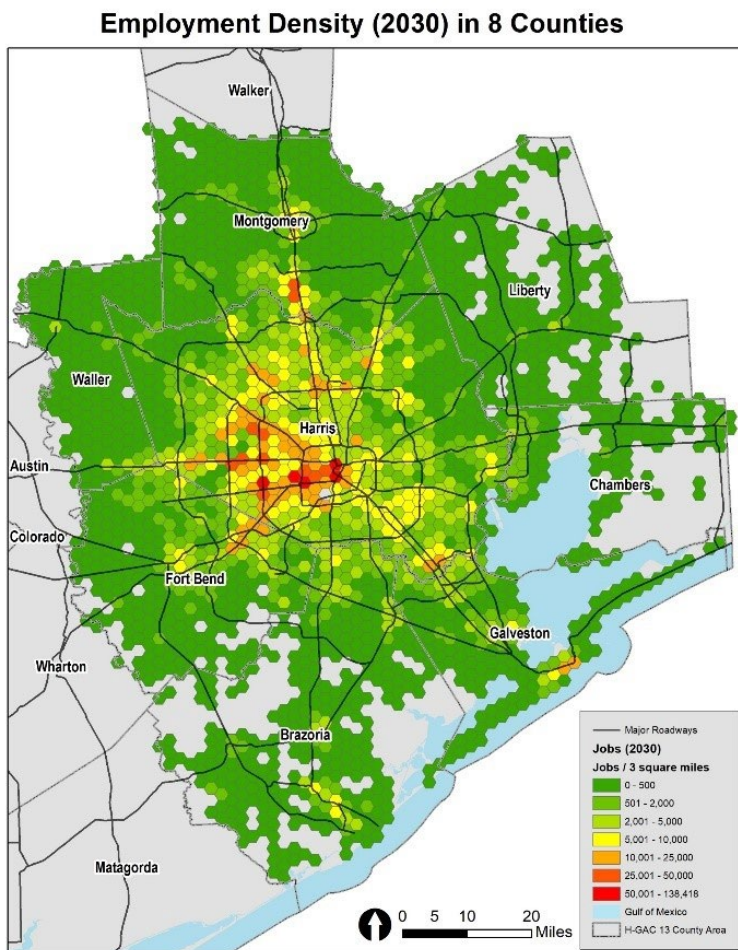
Needs Identified in Public Outreach

The public outreach process demonstrated the regionwide need for more and better transportation services. Each of the activities included in Phase I public outreach – an online survey, a digital mapping activity, and a set of virtual interactive events – garnered feedback about missing or insufficient service in many parts of the region. Participants in several of the virtual interactive events noted that fixed route services either did not exist in their communities or were too infrequent to be useful. Survey respondents also described a lack of transit service in their communities as a primary reason for not using transit and indicated a willingness to use transit if it served their home and desired destinations. Participants in the mapping activity also indicated the absence of service as a key barrier to using transit services in the region, with a concentration of unmet demand in southwestern Harris and Fort Bend counties as well as in northwestern Harris County and the I-45 corridor between Galveston and Houston.

List of Health and Human Services Agencies in the Region

Table 8: List of Health and Human Services Agencies in the 13-County Region

Organization Name	County	Physical Address	City	Zip Code	Email	Phone Number
Actions, Inc.	Brazoria	130 W. Live Oak	Angleton	77515	N/A	979-849-6132
Bayside Community Center	Galveston	4833 10th St.	Bacliff	77518	N/A	281-316-8822
Cleveland Senior Citizens Organization	Liberty	315 Peach	Cleveland	77327	N/A	281-592-1174
Department of Veterans Affairs	Harris	6900 Almeda Road	Houston	77030	N/A	713-383-1999
Dickinson Community Center	Galveston	2714 Hwy. 3	Dickinson	77539	N/A	281-309-5011
Economic Actions of the Gulf Coast	Matagorda	904 Whitson	Bay City	77414	N/A	979-245-6901
Fort Bend Seniors Meals on Wheels and Much, Much More	Fort Bend	1330 Band Road	Rosenberg	77471	N/A	281-633-2162
Galveston County Parks and Cultural Services	Galveston	4102 Main St.	La Marque	77568	N/A	409-770-6251
G.R.A.C.E Initiatives	Liberty	1939 Trinity St.	Liberty	77545	N/A	281-755-7450
Helping One Another, Inc	Austin	510 2nd St.	Sealy	77474	N/A	979-885-4188
Interfaith of The Woodlands	Montgomery	4242 Interfaith Way	The Woodlands	77381	N/A	832-615-8208
Mamie George Community Center Catholic Charities of the Archdiocese of Galveston-Houston	Fort Bend	1111 Collins Road	Richmond	77469	N/A	282-202-6200
Meals on Wheels Montgomery County	Montgomery	1202 Callahan	Conroe	77301	N/A	936-756-5828
Mounting Horizons	Harris	5600 NW Central Drive	Houston	77092	N/A	713-510-8755
Senior Center of Walker County	Walker	340F Highway 75N	Huntsville	77340	N/A	936-295-6151
Senior Citizen Project	Chambers	204 Trinity	Anahuac	77514	N/A	409-267-3559
Texas Health and Human Services Commission, Region 6	Harris	5425 Polk St., Suite 490	Houston	77023	N/A	713-767-2155
Texas Workforce Commission	Harris	427 West 20th St., Suite 110	Houston	77008	customers@twc.state.tx.us	877-787-8999
United Way of Greater Houston	Harris	P.O. Box 3247	Houston	77253	N/A	713-685-2374
Wayne Johnson Community Center	Galveston	4102 Main St.	La Marque	77568	N/A	409-934-8158

Organization Name	County	Physical Address	City	Zip Code	Email	Phone Number
Wharton County Junior College	Colorado	316 Spring St.	Columbus	78934	N/A	979-732-5606
Wharton County Junior College	Wharton	911 Boling Highway	Wharton	77488	N/A	979-532-6430
Workforce Solutions	Austin	2346 Highway 36 South	Sealy	77474	Sealy@wrksolutions.com	979-627-0241
Workforce Solutions	Brazoria	5730 W. Broadway, Suite 122	Pearland	77581	Pearland@wrksolutions.com	832-409-0049
Workforce Solutions	Brazoria	206 Highway 332 W	Lake Jackson	77566	LakeJackson@wrksolutions.com	979-297-6400
Workforce Solutions	Chambers	509 Washington Ave.	Anahuac	77514	N/A	281-837-0079
Workforce Solutions	Colorado	104 Shult Drive B	Columbus	78934	Columbus@wrksolutions.com	979-732-3299
Workforce Solutions	Fort Bend	3823 Cartwright Road	Missouri City	77459	MissouriCity@wrksolutions.com	346-341-7390
Workforce Solutions	Fort Bend	28000 SW Freeway	Rosenberg	77471	Rosenberg@wrksolutions.com	281-344-0279
Workforce Solutions	Galveston	3549 Palmer Highway	Texas City	77590	TexasCity@wrksolutions.com	409-949-9055
Workforce Solutions	Harris	6730 Antoine Drive	Houston	77091	AcresHome@wrksolutions.com	832-403-2232
Workforce Solutions	Harris	9315 Stella Link Road	Houston	77025	Astrodome@wrksolutions.com	713-661-3220
Workforce Solutions	Harris	4308-B Garth Road	Baytown	77521	Baytown@wrksolutions.com	281-837-0079
Workforce Solutions	Harris	1300-A Bay Area Blvd.	Houston	77058	ClearLake@wrksolutions.com	346-230-7018
Workforce Solutions	Harris	1111 Lovett Blvd.	Houston	77006	N/A	713-523-2231
Workforce Solutions	Harris	70 FM 1960 West #A	Houston	77090	CypressStation@wrksolutions.com	281-891-2850
Workforce Solutions	Harris	4450 Harrisburg, Suite 100	Houston	77011	EastEnd@wrksolutions.com	713-228-8848
Workforce Solutions	Harris	500 McKinney	Houston	77002	N/A	832-393-1313
Workforce Solutions	Harris	9668 FM 1960 Bypass Road West	Humble	77338	Humble@wrksolutions.com	281-446-4837
Workforce Solutions	Harris	24025 Katy Freeway, Suite D	Katy	77494	Katy@wrksolutions.com	281-644-1030
Workforce Solutions	Harris	1475 West Gray St.	Houston	77019	N/A	832-394-0814
Workforce Solutions	Harris	4217 Tidwell Road, Suite A	Houston	77093	Northeast@wrksolutions.com	713-697-3437
Workforce Solutions	Harris	4424 North Freeway	Houston	77022	Northline@wrksolutions.com	713-692-7755
Workforce Solutions	Harris	14355 East Wallisville Road	Houston	77049	Northshore@wrksolutions.com	281-458-1155
Workforce Solutions	Harris	8835 Long Point	Houston	77055	N/A	832-393-2000
Workforce Solutions	Harris	12148-B Gulf Freeway	Houston	77034	Southeast@wrksolutions.com	713-576-2580
Workforce Solutions	Harris	13625 Beechnut St.	Houston	77083	Southwest@wrksolutions.com	281-564-2660
Workforce Solutions	Harris	8373 Westheimer	Houston	77063	Westheimer@wrksolutions.com	713-953-9211
Workforce Solutions	Harris	17725 Tomball Parkway	Houston	77064	Willowbrook@wrksolutions.com	281-807-9463
Workforce Solutions	Liberty	2131 Highway 146 Bypass	Liberty	77575	Liberty@wrksolutions.com	936-336-8063
Workforce Solutions	Matagorda	3501 Avenue F	Bay City	77414	BayCity@wrksolutions.com	979-245-4808
Workforce Solutions	Matagorda	1519 4th St.	Palacios	77465	N/A	361-972-9990
Workforce Solutions	Montgomery	2018 IH 45 North	Conroe	77301	Conroe@wrksolutions.com	936-441-0037
Workforce Solutions	Walker	291A Interstate 45 South, Suite A	Huntsville	77340	Huntsville@wrksolutions.com	936-755-7200
Workforce Solutions	Waller	640 10th St., Suite D	Hempstead	77445	Waller@wrksolutions.com	979-826-0653
Workforce Solutions	Wharton	707 Fahrenthold St.	El Campo	77437	N/A	979-531-0730
Workforce Solutions	Wharton	1506 N. Alabama Road	Wharton	77488	Wharton@wrksolutions.com	979-531-0730

Gap Analysis

Introduction

The purpose of the Gap Analysis is to document where and how the region's transportation services may be insufficient to meet the needs of its residents and workers. It builds off the Needs Assessment. While that document looked at all the need for transportation services in the region, this one specifically focuses on those places where needs appear not to be met. Unmet needs can present themselves in a variety of ways. One form of unmet need involves locations where service simply does not exist or does not serve the destinations that people in those areas need to get to: this can be referred to as a "spatial gap." Another type of unmet need may be one in which a service exists, but those who could benefit from the service do not know about it or cannot find the information they need to use it: this can be called an "information gap." A third type of unmet need is one in which a transportation provider cannot access the resources necessary to meet the demonstrated need in the area they serve. This is a "financial gap."

The Gap Analysis reviews each of the gaps listed above. It also:

- Examines the gaps reported by members of the public
- Provides a list of strategies that local and regional stakeholders can use to minimize gaps
- Defines the vision, goals, and objectives for regionally coordinated transportation in the region
- Lays out a series of performance metrics by which progress in reaching those goals can be measured

Spatial Gaps

The region's transportation providers operate with limited funding. As a result, it is important to develop a strong understanding of where, when, and for whom transit is most needed and ensure these most pressing needs are met to the greatest extent possible. Where the supply of transit does not match the need, it shows up as a spatial gap in the region's transportation system – a place where service does not exist or where existing service does not seem to meet the needs of the community.

To easily compare transit need and transit supply, this analysis uses a Transit Need Index (TNI) and a Transit Service Matrix (TSM). The TNI measures the demand for public transit in a particular area, focusing specifically on the needs of certain populations most likely to need transportation service – such as low-income populations, older adults, and persons with disabilities. The TSM identifies the transit service types and frequencies necessary to meet the level of demand indicated by the TNI. Using the TNI, this analysis categorizes the need for transportation services in each area as high, medium, or low. Then the TSM measures to what extent existing, available transportation services are meeting the area need at its demonstrated level.

Transit Need Index

The Transit Need Index (TNI) uses demographic information from the 2019 American Community Survey (ACS) at the block group level to evaluate the need for transportation service in each area. It uses six different factors:

- Population density
- Percent household with zero automobiles
- Percent population older than 65
- Percent household with disability
- Percent children aged 6-17
- Poverty rate

Figure 26 shows the results of this analysis. It shows high levels of transit need in urban and rural communities throughout the region. Urban communities with high TNI scores can be found in north, northeast, and southeast Houston, in southwest Houston and neighboring communities in Fort Bend County, and on Galveston Island. High TNI block groups in rural communities can be found in parts of Chambers and Liberty counties to the east of Houston as well as in Matagorda, Wharton, and Colorado counties in the west of the region. Areas with low TNI mostly form a donut-shape surrounding central Houston, encompassing outlying areas of Harris County as well as parts of Fort Bend, Brazoria, and mainland Galveston counties.

Figure 26: Transit Need Index Results
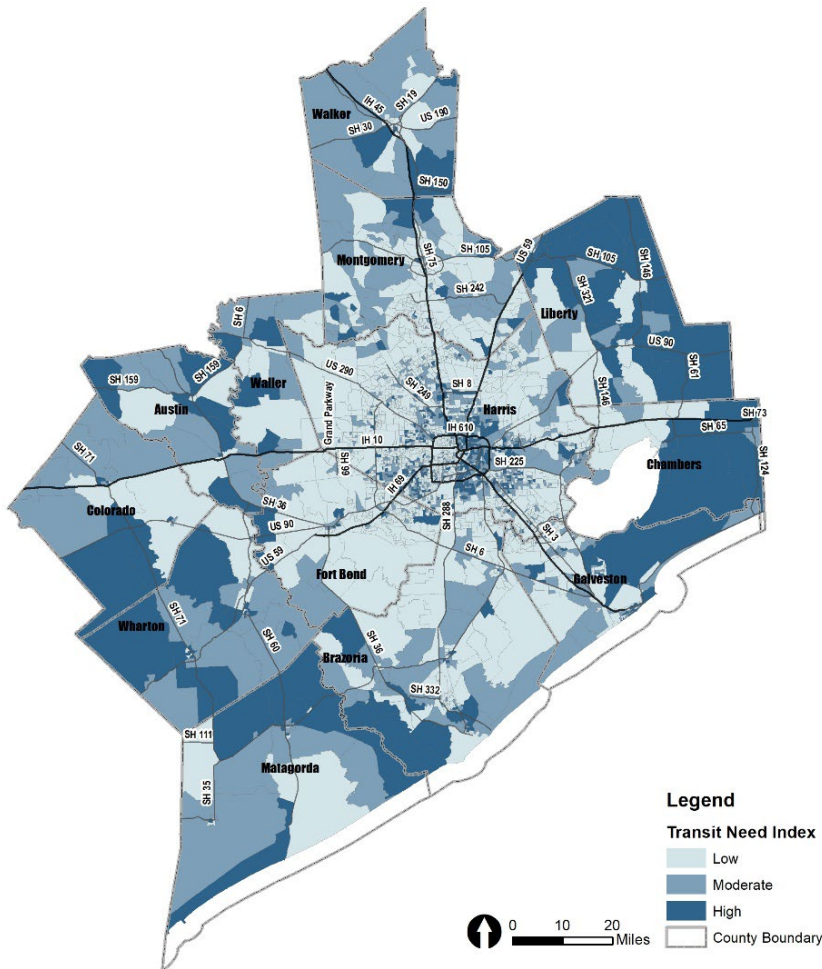
Transit Service Matrix

Appropriate Transit Service Levels

To figure out the extent to which an area's demonstrated transit need is being met, a framework was developed to determine what an *appropriate* amount of service may be for a given area. A rubric was adapted from an internal H-GAC planning document, the *Regional Transit Framework Study 2017 Interim Report*, which was intended to help the region prioritize transit investments. The rubric uses population and employment density as a basis for determining the types of transit service that may be appropriate in a location. Population and employment density are key drivers of overall transit ridership. Areas with large numbers of people and jobs can generally support high-capacity, high-frequency services. Areas with low populations and few jobs can typically support basic demand response services. Areas of moderate density are generally able to support less frequent or lower-capacity fixed route service, or in some cases commute-oriented regional connector buses. This rubric divides densities into five classifications ranging from "high" (at least 15 households or 40 jobs per acre) to "limited" (fewer than three households or four jobs per acre).

Figure 27 shows these classifications mapped onto each block group in the region, based on 2019 ACS data. It shows that much of the region's high-density areas can be found inside the Interstate 610 Loop, with a few additional concentrations in southwest Houston, along the Energy Corridor, and on Galveston Island. With very few exceptions, land outside Beltway 8 is used only at the lowest levels of density. All of the land in the region used at densities greater than "limited" – the lowest classification – can be found in six of the region's 13 counties: Harris, Galveston, Fort Bend, Montgomery, Walker, and Brazoria.

Figure 27: Recommended Transit Service Type by Population and Employment Density
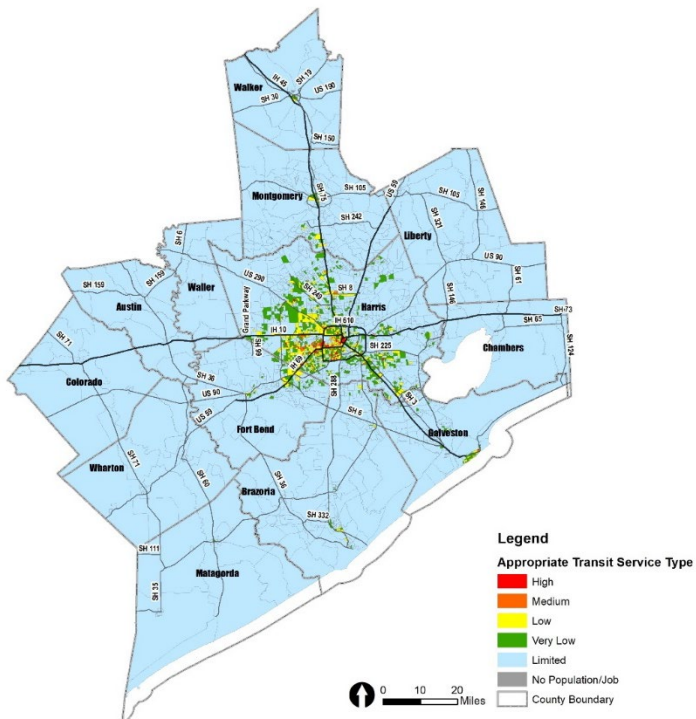
Existing Transit Service Levels

Once a framework was in place to determine an appropriate level of transit service in each location, existing transit services then had to be examined to determine whether they achieve this appropriate level of service. Note that only fixed route services are included in this analysis. Not only is it difficult to evaluate the availability of a demand response service, but it is also difficult to differentiate (for the purposes of this analysis) between demand response services that serve all residents of a given area and those that only provide service to certain groups of individuals. The sole exception to this is that Flex Zones are included, as these are geographically defined and available to the general public. Examples of these include METRO's Community Connectors in Acres Homes and Missouri City, Fort Bend County Transit's services in Richmond and Rosenberg, and Harris County Transit's microtransit pilot in Generation Park. These Flex Zone services are available to the general public and provide point-to-point service within the zone as well as connectivity to the region's fixed route service.

For the purposes of this analysis, existing fixed route service was divided into six groups based on capacity and frequency:

- High-capacity transit, including all bus rapid transit (BRT) and light rail (LRT) services
- Limited-stop express buses, including commuter-focused park-and-ride services
- Local bus services with off-peak headways of 15 minutes or less
- Local bus services with off-peak headways between 16 and 30 minutes
- Local bus services with off-peak headways between 31 and 60 minutes
- Local bus services with off-peak headways greater than 60 minutes

Transit services were mapped, and then a half-mile buffer (roughly a 10-minute walk) was used to approximate the catchment areas of these services, as shown in Figure 28. For the purposes of

determining catchment areas, stop areas were used for park-and-ride and other express services while routes were used for local bus services. This accounts for the fact that some of the bus services in the region do not have fixed stops. These maps show a high density of transit service within Harris County, where all of the region's high-capacity transit can be found. However, in much of the region, standard headways on existing service are infrequent.

Figure 28: Regional Transit Catchment Areas
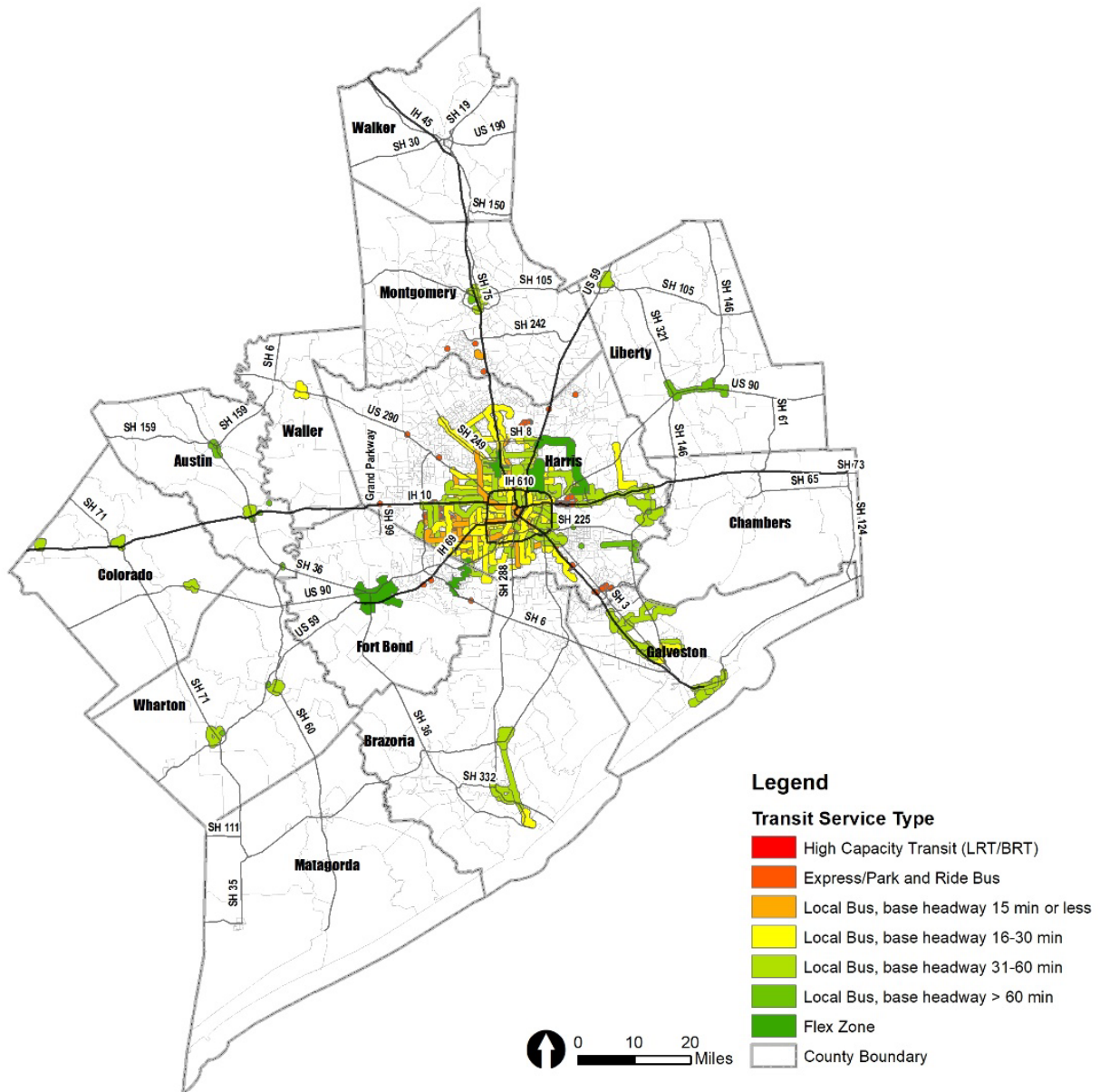
Classifying both the required level of service and the existing level of service allows an analysis of whether an area's transit need is met – by comparing existing service to the suitable level of

service as determined by population and employment density. If existing transit service includes one of the appropriate transit types for a given region's density, it is considered to have "met" its transit need. For example, an area classified as "high" density for this analysis would be considered to have "met" transit need if it has high-capacity transit, an express or park-and-ride bus, or a local bus with base headways of 15 minutes or less. This is the Transit Service Matrix (TSM), which is summarized in Table 9. An X in each box in the table designates that an existing level of transit meets the need for transit in an area with that level of density. This information is then mapped, at the block group level, in Figure 29. Note that this analysis may under-represent transit need since the buffers around transit routes, in some cases, extend into large block groups. This may make those block groups appear to have transit availability beyond that experienced by most of the people living in those block groups.

Table 9: Transit Service Matrix

Service Type	High	Medium	Low	Very Low	Limited
High-capacity transit	X	X	X	X	X
Express/Park and ride bus	X	X	X	X	X
Local bus, headway 15 minutes or less	X	X	X	X	X
Local bus, headway 16-30 minutes		X	X	X	X
Local bus, headway 31-60 minutes			X	X	X
Local bus, headway more than 60 minutes				X	X
Flex zone					X

Figure 29: Transit Service Matrix Results by Block Group
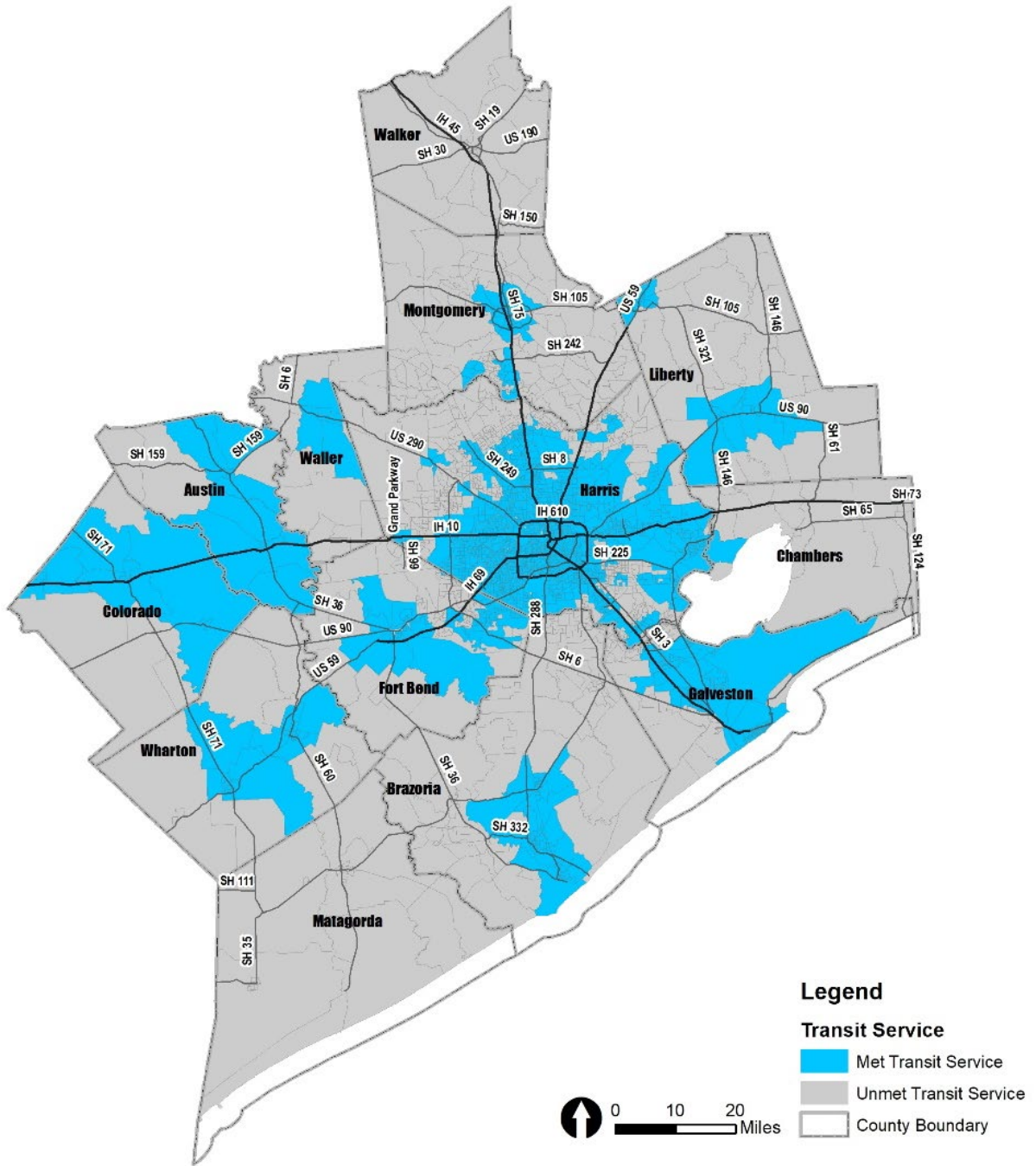
Transit Service Matrix data can then be combined with Transit Need Index data to show areas with high levels of unmet transit need. In essence, this creates a six-category system for evaluating transit need and current transit availability: each block group may have a high, medium, or low level of transit need. Each block group may also have that need be met or unmet by current transit service. A map of every block group in the region, each divided into one of these six categories, can be found in Figure 30. This shows areas throughout the region with unmet high transit need. Many of these areas are rural in nature, encompassing outlying areas of Liberty, Chambers, Walker, Colorado, Wharton, and Matagorda counties. There are, however, some areas closer to the region's core that also have unmet high transit need, most notably in southeast Harris County.

Figure 30: Transit Need and Availability Classifications by Block Group
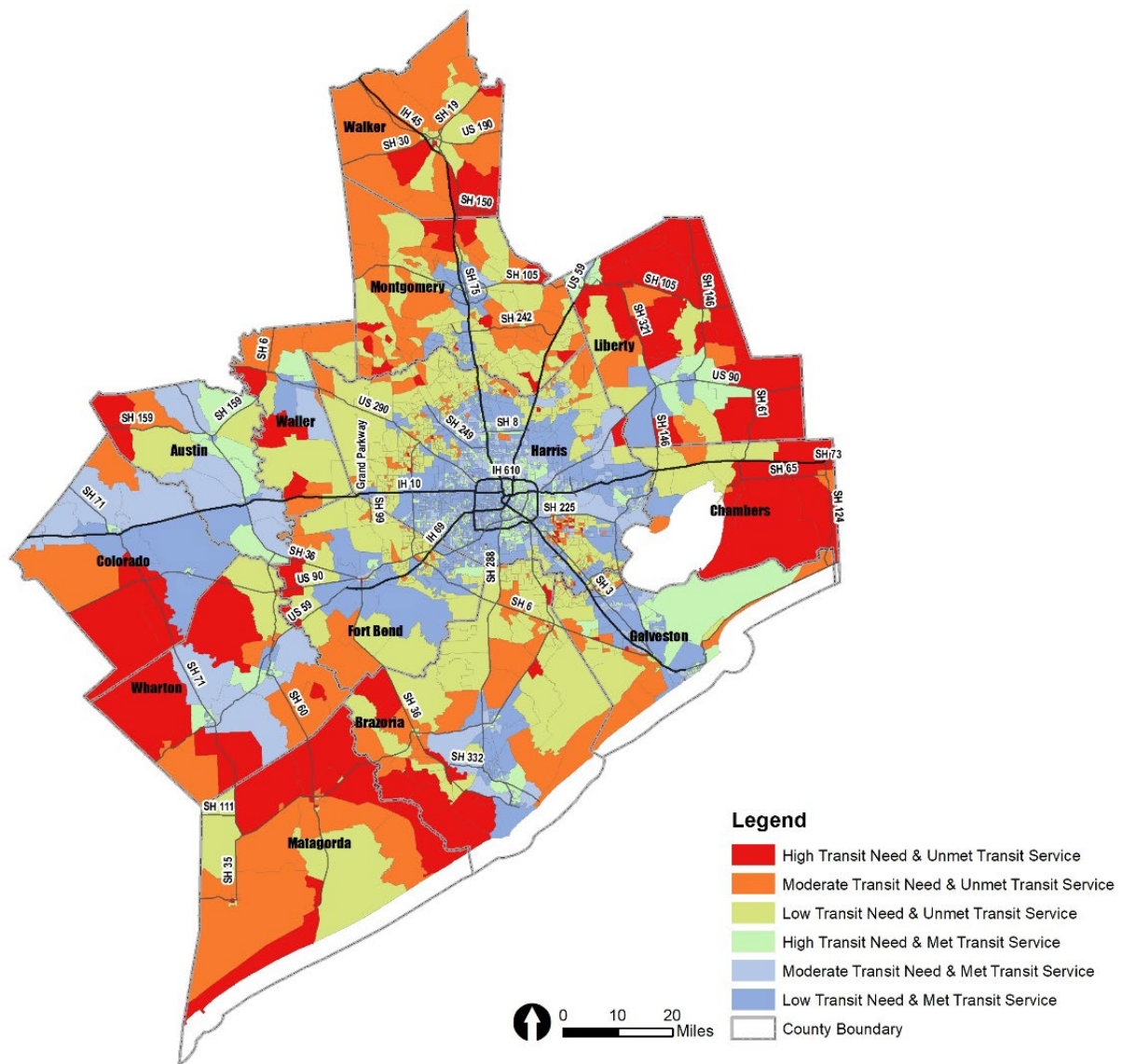
Figure 31 highlights those block groups that have high unmet transit need, denoting the appropriate level of transit service for each as laid out in the Regional Transit Framework Study rubric. While most of the block groups with high unmet transit need are classified as limited density – thus demand response service would be most appropriate for these areas – this is not true of all block groups with high unmet transit need. Several block groups in the region with high unmet transit may be appropriate for a higher level of service. Most of these are near Interstate 610 or Beltway 8 in Harris County. Also, a few block groups are along the Interstate 45 corridor in Galveston County, particularly in Pasadena, which currently has no fixed route transit service. These areas can be seen in more detail in Figure 32.

Figure 31: Block Groups with High, Unmet Transit Need by Appropriate Transit Service Level

Figure 32: Block Groups Near the Region's Core with High, Unmet Transit Need by Appropriate Transit Service Level

Information Gaps

Information gaps can be a crucial barrier to overcome to ensure that everyone has access to transportation services. Individuals cannot use transportation options they do not know about. Even if an individual is aware of a transportation option, if they cannot easily gather key information about how to use it, they will not be able to take advantage of that option. Getting the most out of an investment in transportation resources requires that information about those resources be readily available and easy to find.

Addressing information gaps requires an understanding of what information about transportation options needs to be made available as well as where and how to communicate that information in a way that ensures it is easy to access and understand by members of the general public. There is little existing research on these issues, as most existing publications on transit information focus on graphics and branding standards. This Gap Analysis will lay the groundwork for establishing a minimum standard for information about transit resources and will review the region's transit information to understand if these standards are being met regarding communicating information about available service to the general public.

Vital Transportation Information

To start, it is important to provide the minimum information that a person needs to be able to plan and execute a trip on transit, and what purpose that information serves for the potential rider. A Transit Cooperative Research Program report identifies several key pieces of information a public transit user needs to plan and complete their trip, including the location of the nearest bus stop, the routes that travel to the desired destination and transfer locations, fare, time of departure and approximate duration of the trip[2].

One can look at the informational needs of a transportation user as a series of questions. What questions does the user ask to plan and carry out a trip on a transportation service? Then, what information must be provided to answer each of those questions? Once the information needs of a public transportation user have been established, the next step is to examine when those needs arise. Some of this information will be a pre-requisite for planning a trip but will not be particularly useful while the person is in the vehicle on their way to their destination. A 2007 study of public transportation users' information needs divides the process of planning and completing a transit trip into four stages, each with unique navigation needs:

1. **Pre-trip** information from origin to destination
2. **At-stop** information
3. **Onboard** vehicle information
4. Pre-trip information for **return trip**[3]

Table 10 summarizes the informational needs of a transportation user, what information they need, and at what stages of the trip they need that information.

Table 10: Matrix of Transportation User Information Needs

Information	Question Answered	Trip Stages Required
Name and contact information for existing transit services	What services exist in my community?	Pre-trip
Service eligibility requirements	Am I eligible to use this service?	Pre-trip
Route and stop information	Does this service operate near both my origin and my destination(s)? How and where can I access this service?	Pre-trip, at-stop, on-board, return trip
Headway and/or schedule information	Does this service operate at the time of day and day of week that I want to travel? How long will it take me to get from my origin to my destination using this service?	Pre-trip, at-stop, on-board, return trip
Fare and fare payment information	Is there a cost involved? If so, what is that cost and how do I pay it?	Pre-trip, at-stop
Vehicle and stop amenity information	What conditions can I expect while using this service? What amenities, if any, does this service provide?	Pre-trip

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[2] Transportation Research Board., & Texas Transportation Institute. (1999). Passenger Information Services: A Guidebook for Transit Systems. Transit Cooperative Research Program (TCRP) Report 45, published by Transportation Research Board, Washington.

[3] Caulfield, Brian, O'Mahony, Margaret. (2007). An Examination of the Public Transport Information Requirements of Users. IEEE Transactions on Intelligent Transportation Systems, Volume 8, Issue 1, pp 21-30.

H-GAC's public engagement process demonstrated that information gaps play a noteworthy role in discouraging the use of public service transportation in the Texas Gulf Coast region. In most of the virtual interactive outreach events, participants struggled to find basic information online about the transportation services they would need to make a trip on transit in their area. Online survey data demonstrated that web-based sources are where the region's residents are most likely to look for information about transportation options. Half of survey respondents reported that they were either unaware of any transportation services available in their community or that they didn't have enough information about those options to make use of them. One in five survey respondents reported that they would use transportation services more often if they had a better understanding of the available options.

These responses indicate that information gaps in the Texas Gulf Coast region are a significant barrier to using existing transportation resources. They also suggest that these information gaps are not necessarily caused by vital information not being available. Instead, that vital information is difficult to find, or it is not available in the forms or media in which it is most needed. Improving access to information about transportation could help improve mobility in the region by filling these information gaps and making existing services easier to use for more people.

To understand how to improve access to information about transportation services, it is important to start with a review of how the region currently communicates information about its services. This Gap Analysis will look at two important tools the region uses to communicate with riders – websites and bus stop signage – using the framework laid out above for understanding riders' information needs.

Bus Stop Signage

In the previous section, there were three vital pieces of information that were found to be necessary for riders to have at a bus stop: headway/schedule information, route and stop information, and fare and fare payment information. This section analyzes bus stop signage at fixed transit stops for all public transportation services in the 13-county region. For each category of information required, signage is graded on a 1-3 scale. These scores are based on the questions listed in Table 10. Signage receives a score of 3 if the relevant question can be completely answered by the information available on the signage. It receives a score of 2 if the relevant question can be partially answered by the information available on the signage. Finally, it receives a score of 1 if the relevant question cannot be answered at all by the information available on the signage. A total score is then calculated by adding these three scores together, with a minimum of 3 and a maximum of 9. Analysis is based on photos of signs at fixed route stops for each transit provider in the region, with images either provided by the agency or photographed by H-GAC staff. These findings are summarized in Table 11. Note: this analysis does not consider the percentage of a provider's stops that have signage because this data is not available.

Table 11: Score Summaries for Bus Stop Signage by Fixed Route Transit Provider

Agency Signage	Headway/Schedule Information Score	Route and Stop Information Score	Fare and Fare Payment Information Score	Total Score
City of Conroe	1	2	1	4
Fort Bend Transit	1	1	1	3
Gulf Coast Transit District	1	1	1	3
Harris County Transit	3	3	2	8
Island Transit	1	1	1	3
METRO	3	3	2	8
The Woodlands Township	3	3	1	7

Websites

The public outreach process indicated that transit provider websites are the most commonly used source of information about public transit, so it is important that the region's providers have vital travel information available and easily found on their websites. To evaluate the effectiveness of the public transit websites in our region, this study applied two questions to each of the key information types listed in Table 10:

1. Is the information needed to plan a transit trip available on the agency's website?
2. How easy is it to find the information?

To evaluate these questions in a quantifiable way, the study team developed a site scoring process. In this process, a website is awarded three points for each piece of vital information available on its website. It is awarded two points if only some of that information is available or if it is only available for some of the services offered by that provider. One point is also deducted for broken links. Starting from each website's home page, for each click after the first two required to access that information, one point is deducted from the score. This test rewards agencies that meet the "three-click rule," a common method for evaluating a website's ease of use. This rule holds that all vital information on any website should be accessible within three clicks from the home page. The maximum score an agency's website could receive is 18.

This test was conducted for the websites of each public transit provider listed in the Provider Inventory. A summary of scores is found in Table 12.

Table 12: Transit Provider Website Evaluation Score Summary

Agency Website	Total Score
Brazos Transit District	17
City of Conroe	16
Colorado Valley Transit	16
Fort Bend Transit	16
Gulf Coast Transit District	15
Harris County Transit	13

Island Transit	15
METRO	14
R Transit	15
The Woodlands Township	16
Regional Average	15

This test should be understood as a starting point rather than a comprehensive evaluation. One key factor it misses is accessibility. For instance, it does not test whether a website can be easily navigated by individuals using screen readers. It also does not test the website's useability on mobile device. All tests done for this analysis were conducted on a Windows PC using the Microsoft Edge browser. Further research and testing are needed to help each agency develop the most complete understanding of their website's strengths and deficiencies.

In previous Regionally Coordinated Transportation Plan updates, H-GAC has worked to improve access to information about transportation services. For example, Mobility Links, H-GAC's one-click program to connect individuals to transportation resources, was recommended in the 2017 RCTP and has since been implemented. However, the results of the public outreach process demonstrated that there is still work to be done to ensure that everyone in the region has access to the information they need to plan and execute a trip on a public transportation resource.

One way to reduce information gaps may be to improve the existing Mobility Links system. The ongoing Regional Transit Connectivity Initiative – an effort to establish a regional fare, associated mobile application, and data management system for the region's transit providers – will provide users of public transportation a trip planning service that will integrate many of the region's public transit operators. However, this service is planned to be separate from Mobility Links and would not include specialized transportation providers, including for-profit and nonprofit providers. Additionally, while the region's new ConnectSmart platform introduced in 2021 may include future integration with Mobility Links, there is no set timetable for inclusion of this feature in ConnectSmart. Both the creation of a provider portal and the integration of trip planning assistance into the existing Mobility Links system would improve access to information about transportation in the region.

Deeper study is needed to determine the information needs of both current and potential transit users. This may also include the development of more detailed matrices to determine the information needs of transportation users and the development of a rubric to evaluate public transit providers on the quality and ease of access of information about transportation. This evaluation would enable H-GAC to provide resources and planning support that would fill the most vital information gaps. This evaluation would need to be tailored to each agency. While some agencies provide information to their riders mostly through electronic resources – including agency websites, mapping applications like Google Maps, text messages, and social media – at least one public transit agency in the region reports that it interacts with riders primarily via phone calls, as its riders may not necessarily have access to or want to use electronic resources.

Financial Gaps

Table 13 summarizes the capital and operating expenses for the region's transit providers, based on 2019 National Transit Database data (the most recent data available) and projects operating expenses through 2026, when the next Regionally Coordinated Transportation Plan update will be completed. Capital expenses vary greatly from year to year depending on the status of projects, capital funding, rolling stock purchases, and additional factors. Hence, the distribution is quite different for capital projects and may change greatly from one year to the next, making these more difficult to project. For example, Fort Bend Transit reported more than $22 million in capital expenses in 2019 but should be expected to have lower capital expenditures in future years since its high capital outlays in 2019 covered several major projects. Future capital expenditures will also depend in part on pending federal and state legislative initiatives.

METRO generated more than $574 million in operating expenses in 2019, or 95% of all transit operating expenditures in the region. In the 13-county region, no other transit providers' operating expenses exceeded $10 million. Total operating expenses for all agencies in the region was $606 million.

Operating expense projections assume a 3% annual cost increase each year from 2019 to 2023 followed by a 5% annual cost increase each year from 2023 to 2026. These assumptions reflect the 5.9% annualized growth rate in operating expenses for the region's transit operators from 2015 to 2019, with the impacts of the pandemic expected to temporarily slow implementation of new programs and services. While ridership has declined regionwide since the start of the COVID-19 pandemic, depressing farebox revenue, these projections assume that agencies will return to 2019 ridership levels in 2023 and increase 5% annually through 2026. These projections indicate that the cost of operating the region's transit systems will increase by more than $183 million by 2026, a 30% increase over 2019 expenses.

While some of the region's operators have cash reserves, these reserves may not be enough to cover expected operating cost growth. For example, as of FY 2020, METRO had cash reserves of $386,968,000. It projects that reserve to drop by almost half (to $185,854,000) by FY 2025 despite projecting operating cost growth of just 1.6% annually in that time frame[4]. If operating cost growth stays closer to recent norms, this indicates that the region's transit providers may need to find new sources of revenue (or make more efficient use of existing revenue) to prevent the development of financial gaps that may prevent these agencies from meeting projected transportation need. The Financial Analysis examines the revenue and expense challenges transit providers face in greater detail.

Table 13: Transit Operator Capital and Operating Expense Summary

Transit Operator	Operating Expense ($)	Capital Expense ($)	Total Expense ($)	One-Way Trips
City of Conroe	1,754,849	234,160	1,989,009	45,008
Fort Bend Transit	8,047,621	22,417,974	30,465,595	407,714
Gulf Coast Transit District	4,935,543	367,965	5,303,508	250,041
Harris County CSD	5,478,842	1,060,770	6,539,612	229,899

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[4] Metro FY 2021 Business Plan and Budget. Available at https://www.ridemetro.org/Pages/FABudgets.spx, Accessed 12/22/2021.

Transit Operator	Operating Expense ($)	Capital Expense ($)	Total Expense ($)	One-Way Trips
Island Transit	3,989,195	23,735	4,012,930	407,979
METRO	574,298,124	163,005,979	737,304,103	89,951,217
The Woodlands Township	6,172,215	15,360	6,187,575	604,068
Total 2019	604,676,389	187,125,943	791,802,332	91,895,926
Estimate 2023	680,568,603	-	-	91,895,926
Estimate 2024	714,597,033	-	-	96,490,722
Estimate 2025	750,326,885	-	-	101,315,258
Estimate 2026	787,843,229	-	-	106,381,021

Gaps Reported in Public Outreach

Throughout the RCTP public outreach process, participants have noted gaps in the region's transportation system. These gaps prevent trips from taking place or make trips more difficult and time-consuming. Two phases of public outreach have been conducted. Phase one included a set of virtual interactive events, an online survey, and a mapping activity. The second phase consisted of a set of focus groups. Each of these activities explored various aspects of the region's transportation need and barriers to transportation use.

The online survey indicated that the spatial gaps in transit service – the places where service does not exist or does not serve the places people need to travel to – is a key barrier to using transportation services in the region. Fifty-five percent of survey takers reported never using public transit in their communities. These participants were asked to choose from a list of reasons they do not use public transit. Participants were most likely to cite "there is no public transportation in my community" and "public transportation does not serve my home and/or the destinations I am trying to reach" as reasons they do not use transportation services. In addition to this question, all survey respondents, including those who use transportation services in the region, were asked to choose from a list of their key concerns about the region's transit systems. Again, an absence of service was the most common theme among the answers cited, along with a lack of service to key origins and destinations and a lack of timely service. These responses indicate adding service, both to new and existing destinations, would help fill the gaps in the region's transportation network.

The virtual events demonstrated how information gaps prevent people from using transportation services in the region. In the virtual events, participants were asked to work together to figure out how to use existing transit services to plan and complete a trip on transit between two points provided by the moderator. Participants repeatedly struggled to find basic information about the services they needed to use. At several of the events, representatives from the transit agency in question needed to explain to participants which routes and stops they would need to use to complete the assigned trip. These results point to the importance of information gaps in limiting transit use in the region.

The focus groups showed ways in which transportation services in the region fail to meet the needs of individuals that depend on them. Of particular note was the focus group for individuals with disabilities. In this focus group, participants detailed how paratransit and non-emergency

medical transportation (NEMT) services targeted to them do not meet their needs. Among the issues they reported were slow, unreliable service, service that required them to navigate unsafe or uncomfortable environments, and service that made it nearly impossible to complete trips that require crossing jurisdictional boundaries. These barriers made them less able to access job and educational opportunities as well as medical care and other vital services. Also of note was the focus group for students in the region. Several participants who rarely or never use transit expressed an interest in using transit more often, noting that the cost of gas was a significant strain on their tight budgets. The barriers, they noted, to using transit more often included a lack of knowledge about the options available to them, a lack of availability of service on nights and weekends, and a lack of service near their home or school. This illuminates how people in the region who could benefit from transit can be kept from riding by spatial and information gaps.

Key Findings and Recommendations

This section synthesizes several key findings illuminated by the various elements of the Regionally Coordinated Transportation Plan. Those key findings serve as organizing themes for recommendations, which provide a set of tools to mitigate each of the issues demonstrated by these key findings. For each recommendation, an expected outcome and suggested locations for implementation are also provided.

Finding #1: Transit Service Improvements

The 13-county region has seen significant growth in population and jobs since the previous RCTP update. This growth has been strongest in areas just outside Harris County, including parts of Montgomery, Waller, Chambers, and Fort Bend counties. Current projections indicate that this growth will continue. Existing transportation options are insufficient for many in the region. The Needs Assessment indicated that many of the populations more likely to need transportation services live in places like northwestern Harris County where minimal transit service is available while the Gap Analysis demonstrated unmet transportation need in both rural and urban parts of the region. Participants in the public outreach process also indicated that a lack of service to their desired origins and destinations was a key factor preventing them from using transit in their communities. The quantity and quality of transportation services in the region must improve, both to meet existing unmet demand and to keep pace with population growth in the region.

Finding #2: Transit Information Gaps

Information gaps were found to be key barriers to using existing transportation services throughout the region. Participants in the public outreach process for this project were largely unaware of transportation options available to them, and/or they struggled to find the vital information they needed to use these services. In the Phase I public outreach, both the online survey and the virtual events offered opportunities to capture these information gaps. In the survey, 19% of respondents reported knowing about a transportation service in their community but not knowing how to use it while 24% of respondents who reported never using transit cited their lack of knowledge about transportation options as a primary reason they do not use transit. Furthermore, at almost all of the events, participants struggled to find and interpret the basic information they needed to plan a trip on transit. Additionally, analyses of bus stop signage and transit provider websites showed room for improvement in how the region communicates with the public about public transit services. While research on the information needs of

transportation users is limited, the region must do more to better understand the informational needs of travelers in the region and work to better meet those needs.

Finding #3: Unmet Needs Among ADA Paratransit and NEMT Users

Throughout the public outreach process, members of the public described the services targeted at seniors and persons with disabilities as insufficient and not meeting the needs of a highly transit-dependent population. This was best illuminated by the participants in the focus group targeted to persons with disabilities. Participants in this group struggled to find transportation services that met their needs. Existing options may not provide reliably on-time service or have trouble providing services across jurisdictional boundaries. They may also place users into unsafe or unhealthy situations. These problems made it more difficult for the users of these services to acquire and hold jobs, to meet their educational goals, and to access medical care and other vital services. For most of these individuals, overcoming barriers to transportation access required either very long trips or very expensive mode choices, and in many instances those barriers could not be overcome at all. To ensure that seniors, individuals with disabilities, and others who rely on ADA paratransit and NEMT services can participate fully in the economic and social life of the region, these services must improve.

Finding #4: Insufficient Coordination with Nonprofit and For-Profit Transportation Providers

Over the course of this planning process, reaching transportation providers other than public transit agencies proved difficult. To contact the region's providers, H-GAC staff relied on the database of transportation providers that powers the region's Mobility Links service, an outcome of the 2018 Gulf Coast Regionally Coordinated Transportation Plan. However, many of the providers in that database were unreachable or no longer providing transportation services, resulting in very low response rates. Among providers that could be reached and who responded to the provider survey, many of the nonprofit providers, and all of the for-profit providers, expressed frustration with the state of coordinated transportation planning in the region, explaining that they did not feel included in planning processes that affected the areas they serve. Nonprofit and for-profit providers can be a key element of meeting the need for transportation in the region. To get there, the region must do a better job of reaching out to these providers and ensuring that they are included in relevant planning processes.

Table of Recommendations

RCTP recommendations are listed in Table 14 below. They are divided into four categories, based on which of the four findings listed above they are expected to address. For each recommendation, there is also an expected outcome as well as suggested locations for implementation, along with suggested funding sources and implementing agencies.

Table 14: List of Recommendations, Expected Outcomes, and Suggested Implementation Locations

Gap Category	Recommendation	Expected Outcome	Suggested Locations for Implementation	Potential Funding Sources	Implementing Agencies
Transit service is non-existent or does not meet transportation needs.	Add new fixed route services and/or extend existing fixed route services in areas with moderate or high Transit Need Index scores and unmet transit need and where fixed route services are justified by population or employment density.	New and expanded fixed route transit services will improve access to transportation services for those living in areas currently not served by transit.	North, northwest, and southeast areas of Harris County, Montgomery County, northern Galveston County	5307, CMAQ	Transit agencies, local governments
	Add new demand response services and/or increase capacity of existing demand-response services in areas with moderate or high Transit Need Index scores and where fixed route services are not justified by population or employment density.	New and improved demand response services will improve access to transportation services for those living in areas currently not served by transit.	Matagorda County, Chambers County, Liberty County, and Colorado County	5307, CMAQ	Transit agencies, local governments
	Implement demand response services in parts of the region with no transit service to ensure a baseline level of transportation availability for all residents of the region.	Introduction of demand response service in locations with no existing transportation options will provide a mobility alternative for individuals in unserved parts of the region.	Areas with no existing transportation service, including Chambers County, the Pearland area of Brazoria County and Waller County	5307, CMAQ	Transit agencies, local governments
	Implement pilot projects to test microtransit and other emerging transit technologies	Emerging transit technologies will help fill transportation gaps in	A pilot is already underway in the Generation Park area of Harris County, and	5307, 5310, CMAQ	Transit agencies, local governments

Gap Category	Recommendation	Expected Outcome	Suggested Locations for Implementation	Potential Funding Sources	Implementing Agencies
	and expand implementation where pilots are successful.	places where more traditional transit services are unworkable or less efficient.	additional pilots could be conducted in other emerging population and employment centers.		
	Expand frequency and hours of operation on existing transit services to increase capacity in areas currently served by transit.	Improvements in the quality of transportation service will make transit a viable option for more trips.	Areas with existing transit services regionwide	5307, CMAQ	Transit agencies, local governments
	Help transportation providers build capacity to flexibly take advantage of emerging funding streams and meet demand for fixed route and demand response services.	Transportation providers will be well-prepared to capitalize on opportunities to expand service and meet local demand for service.	Regionwide	Federal Transportation Planning Funds, Surface Transportation Block Grant planning funds, CMAQ, 5304, local funds	H-GAC, local governments
	Implement community van programs to expand access to transportation services beyond the hours of operation of existing services and to improve access to destinations currently not served by transit.	Community van programs will provide additional transportation options in communities where transportation need is not being met, enhancing mobility for individuals whose travel choices are currently limited by insufficient transportation options.	Regionwide	5310, CMAQ, state and local funds	Local governments, community-based organizations
	Capitalize on existing regional carpool, vanpool, and TDM programs to provide additional tools to meet	The region's residents will be able to take advantage of existing carpool and vanpool programs to help	Regionwide	Federal Transportation Planning Funds, CMAQ, local funds	H-GAC (Commute Solutions Program)

Gap Category	Recommendation	Expected Outcome	Suggested Locations for Implementation	Potential Funding Sources	Implementing Agencies
	demand for transportation services.	meet their transportation needs where possible.			
	Use targeted investments to improve pedestrian and bicycle infrastructure near transit corridors to improve access to existing transportation services.	Safe, easy-to-use walking and bicycling routes will improve access to transportation by strengthening first and last mile connections.	Areas near existing transit corridors where pedestrian and bicycle infrastructure are currently missing or insufficient.	5310, state and local funds	H-GAC, transit agencies, local governments
Travelers do not know about transportation services available to them and/or are unable to easily find vital information about transportation services available in their community.	Conduct additional studies to better understand information needs of travelers in the 13-county region.	Planners will understand information needs of travelers and will know more about the strengths and deficiencies of existing sources of transportation information.	Regionwide	Federal Transportation Planning Funds, Surface Transportation Block Grant planning funds, CMAQ, 5304, local funds	H-GAC
	Develop evidence-based regional best practices for transportation information that center rider needs.	Transportation providers in the region will understand the most effective tools and methods for sharing vital information about their services.	Regionwide	Federal Transportation Planning Funds, Surface Transportation Block Grant planning funds, CMAQ, 5304, state and local funds	H-GAC
	Support initiatives to help transit providers better communicate with the public about their transportation services, including improvements to websites, signage, and community outreach.	Transit providers will more effectively disseminate information about the services they offer and will increase their capacity to inform the public about their services.	Regionwide	Federal Transportation Planning Funds, Surface Transportation Block Grant planning funds, 5304, state and local funds	H-GAC

Gap Category	Recommendation	Expected Outcome	Suggested Locations for Implementation	Potential Funding Sources	Implementing Agencies
	Improve Mobility Links service by developing a portal for transportation providers to add and update information about the services they offer.	Transit providers will be able to easily use Mobility Links to distribute current information about their services to potential riders, allowing riders to more easily learn about the transportation options available to them.	Regionwide	Federal Transportation Planning Funds, Surface Transportation Block Grant planning funds, CMAQ, 5304, state and local funds	H-GAC
	Improve Mobility Links service by implementing a trip planning tool for users to better understand all the services available to them for a given trip.	Users of transportation services will be able to use Mobility Links to understand all of the transportation options available to them and compare options to determine which one best meets their needs.	Regionwide	Federal Transportation Planning Funds, Surface Transportation Block Grant planning funds, CMAQ, 5304, local funds	H-GAC
	Implement a regional Transportation Ambassador program, providing community leaders and other volunteers with the tools they need to spread information about transportation services via word-of-mouth.	Community leaders will be knowledgeable about the transportation options in their community, and better able to help members of those communities learn about and access existing transportation options.	Regionwide	Federal Transportation Planning Funds, Surface Transportation Block Grant planning funds, CMAQ, 5304, state and local funds	H-GAC
	Supplement Mobility Links with a regional Mobility Manager program, allowing individuals to call and speak with a regional transit expert	Residents will be more easily able to find information about transportation options across the entire region, enabling	Regionwide	Federal Transportation Planning Funds, Surface Transportation Block Grant planning funds, CMAQ, 5304, local funds	H-GAC, Harris County, other transportation providers, local governments

Gap Category	Recommendation	Expected Outcome	Suggested Locations for Implementation	Potential Funding Sources	Implementing Agencies
	who can help them navigate transit trips that cross jurisdictional boundaries.	them to use transportation services for more cross-jurisdictional trips.			
	Continue implementation of the Regional Transit Connectivity Project, including regional fare, regional trip planning tool, mobile app, data management tool, and development of GTFS feeds for participating providers.	Free, easy-to-use tools will enable trip planning across jurisdictional boundaries, enabling riders to use transportation services for more of their trips.	Regionwide	Federal, state, and local planning funds	H-GAC
Existing specialized services for seniors and individuals with disabilities do not provide timely or reliable service, and trips that require crossing service area boundaries are difficult or impossible.	Create a regional advisory workgroup comprised of paratransit and NEMT users, and representatives of organizations that provide these transportation services, to promote collaborative efforts to meet the transportation needs of persons with disabilities and to encourage providers to work together for more efficient dispatch and cost-sharing.	Paratransit and NEMT users will be able to regularly participate in conversations that ensure the transportation services they rely on will more effectively meet their needs, and providers of transportation services will be able to collaborate to provide more efficient and higher-quality services.	Regionwide	Federal Transportation Planning Funds, Surface Transportation Block Grant planning funds, state and local funds	H-GAC
	Expand access to subsidized taxi and TNC services for seniors and persons with disabilities in areas where existing fixed route and	Seniors and persons with disabilities will have access to reasonably priced services that enable them to access the places they need to go.	Regionwide, potentially starting with existing Harris County RIDES program	5310, state, and local funding	Transit agencies, local governments

Gap Category	Recommendation	Expected Outcome	Suggested Locations for Implementation	Potential Funding Sources	Implementing Agencies
	demand-response transit services do not meet the needs of seniors and persons with disabilities, and work with providers and users to ensure these services meet those riders' transportation needs.				
For-profit and nonprofit transportation providers do not feel included in regional transportation planning and coordination efforts.	Increase collaboration with nonprofit and for-profit transportation providers, proactively reaching out to them and including them as key stakeholders in future regional and subregional transportation studies.	Transportation providers in the region will be more aware of planning efforts happening within their service area and will have ample opportunity to participate in those planning processes.	Regionwide	Federal, state, and local planning funds	H-GAC, local planning bodies, transit agencies
	Work with regional partners to update Mobility Links provider database.	Transportation users will have easy access to an up-to-date, one-click database of all transportation resources in the region, and transportation providers will be engaged in a way that helps more people take advantage of their services.	Regionwide	Federal, state, and local planning funds	H-GAC, Harris County Transit

Key Takeaways

- The region's population is growing rapidly, particularly in areas near Harris County, such as Montgomery and Fort Bend counties.
- Potentially vulnerable populations – including low-income households, persons with disabilities, and veterans – can be found in large numbers in areas outside the reach of existing fixed route transit, especially in parts of Harris County, Fort Bend County, and Montgomery County.
- Existing employment centers are primarily located in Harris, Galveston, and Montgomery counties, and job growth is projected to be centered on these existing employment areas.
- While residents of the rural areas of Chambers and Matagorda counties have the furthest to travel for medical care, lack of transportation availability at medical facilities is a regionwide problem, including inside the region's core.
- Public outreach demonstrated a strong desire for more and better transit service, particularly in Harris, Galveston, and Fort Bend counties.
- Areas with high transit need and insufficient transit service can be found throughout the 13-county region, and these areas should be expected to grow in number in line with that of the region's population and employment.
- More needs to be done to ensure that vital transportation information is easily available to everyone in the region, but more work needs to be done to better understand the information needs of the region's travelers.
- The region's transportation providers will likely need substantial growth in funding to meet their growing operating expenses.
- Public engagement demonstrated that spatial gaps and information gaps are key barriers to transit use in the region.
- Persons with disabilities could be served better by the transportation services targeted to them. These services were noted as slow and unreliable by many patrons in this study, sometimes put their users in situations that made them feel unsafe, and can make it difficult to take trips that cross jurisdictional boundaries.

Planning for Comprehensive Services

Introduction

The region's transportation agencies have found funding a consistent challenge. On top of this, the ongoing COVID-19 pandemic has posed additional challenges for transportation providers throughout the region and across the country. While tax revenues have rebounded in many places, ridership has yet to recover, and it may not return to pre-pandemic levels for several years to come. However, the financial picture for transportation providers is not entirely bleak, as pandemic support and new legislation has helped transit agencies stay afloat during difficult times and offers promise for the future.

The RCTP Financial Plan begins by examining funding allocated in the 2045 Regional Transportation Plan to public transportation capital and operating expenses. It then analyzes existing and emerging federal funding streams and looks at local matching opportunities that

can allow the region to make best use of federal funding. It concludes by suggesting actions to maximize the money available for providing transportation services in the region.

2045 Regional Transportation Plan Transit Investment Summary

The 2045 Regional Transportation Plan (RTP) contains a variety of investments in the region's transit service and infrastructure, such as expanding the region's high-capacity transit network, achieving a state of good repair for transit facilities, and other capital and operating expenditures. These investments are projected to cost a total of $67.1 billion between now and 2045.

The money used to support the region's transit providers comes from a variety of sources, including federal, state, and local funding streams. Table 15 contains key financial details for the region's transit operators sourced from the National Transit Database. Data is from 2019, the most recent year for which information was available.

Table 15: Summary of Key Financial Details for Regional Transit Providers

Agency	Operating Expenses	Capital Expenses	Total Expenses	Ridership
City of Conroe	$1,754,849	$234,160	$1,989,009	45,008
Fort Bend County Transit	$8,047,621	$22,417,974	$30,465,595	407,714
Gulf Coast Transit District (Connect Transit)	$4,935,543	$367,965	$5,303,508	250,041
Harris County Transit	$5,478,842	$1,060,770	$6,539,612	229,899
Island Transit	$3,989,195	$23,735	$4,012,930	407,979
METRO	$574,298,124	$163,005,979	$737,304,103	89,951,217
The Woodlands Township	$6,172,215	$15,360	$6,187,575	691,409
Totals	$604,676,389	$187,125,943	$791,802,332	91,983,267

Federal Funding Streams

The Federal Transit Administration (FTA) is the primary source of federal funding for public transit and the sole source of federal formula funding for local transit services. A variety of discretionary and formula funds from the Federal Transit Administration provide capital and planning support, and in some cases operating support, for transit agencies throughout the region. Smaller additional programs are available in other federal agencies within the United States government including the Department of Labor and Health and Human Services. Funding for the region's transit providers from the largest of these programs is summarized in Table 16.

Table 16: Summary of Federal Funds Received by Transit Agencies, FY 2021[5]

Agency/Areas	Urban 5307	5310	Rural 5311	State Assistance
METRO[1]	$313,167,209	$3,643,365	N/A	N/A
Conroe- The Woodlands[2]	$1,686,500	$194,923	N/A	$513,806
Galveston	$798,050	N/A	N/A	N/A
Lake Jackson[3]	$280,421	N/A	$400,220	$261,219
Texas City[3]	$620,314	N/A	Includes above	$333,530
Fort Bend Transit	[1]	N/A	$467,501	$333,994
Harris County Transit	[1]	N/A	N/A	N/A
Colorado Valley Transit	N/A	$225,000	$614,574	$484,101
TOTAL	$316,552,494	$4,063,288	$1,482,295	$1,926,650
[1]Suballocations will occur to Fort Bend Transit and Harris County Transit in 2022				
[2]The amounts were split between the City of Conroe and The Woodlands Township				
[3]Lake Jackson and Texas City are both operated by the Gulf Coast Transit District				

Federal Formula Funds

5307

5307 funding for urban areas provides funding to all transit agencies with populations higher than 50,000. In 2019 (the last year full information is available), $5.262 billion was allocated nationwide, according to the FTA. Urbanized areas with populations higher than 200,000 (Houston and Conroe-The Woodlands are designated recipients) received their funds directly from the FTA. Smaller urbanized areas such as the city of Galveston, Texas City-La Marque, and Lake Jackson-Angleton receive funds indirectly. Their funds are suballocated from TxDOT as determined by the Texas Transportation Commission.

5310

5310 (Enhanced Mobility of Seniors and Individuals with Disabilities) provides funding for the purpose of meeting the transportation needs of older adults and persons with disabilities. Funding is allocated through a formula directly to urban areas with populations higher than 200,000 and is routed through the Texas Department of Transportation for urban areas with populations fewer than 200,000. Eligible projects include traditional capital investments and programs that remove barriers to transportation services and expand transportation mobility options. In the Houston area, 5310 funding is allocated directly to METRO, which is responsible for the competitive process to allocate funding to specific projects.

5311

The 5311 program (Rural Formula Funding and Intercity Bus) provides federal formula grants in designated rural areas with populations fewer than 50,000. Colorado Valley Transit (CVT) is the

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[5] Texas Transportation Commission Minute Order, June 30, 2021.
Available at https://ftp.txdot.gov /pub/txdot/commission/2021/0630/6.pdf.

only agency within the Houston-Galveston region that receives all its federal operating formula funding in this manner. The Gulf Coast Transit District and Fort Bend County Transit receive portions of their funding from 5311 since part of their service area is rural. Funding is apportioned to the states, which in turn allocate amounts to the different respective agencies. At least 15% of all 5311 formula funds are normally set aside to assist intercity bus services within the state.

There are a variety of other formula and discretionary funding opportunities that support transit providers. Discretionary funding is federal funding that transit agencies and other designated recipients (such as management districts) may compete for in specific calls for projects. Among examples of these competitive grants are: Areas of Persistent Poverty, Better Utilizing Investment to Leverage Development (BUILD), and Congestion Mitigation and Air Quality (CMAQ)[6] – initially funded through the Federal Highway Administration, which works with the FTA in administering the program. All of the grant programs, including formula and competitive funding opportunities, can be accessed at www.transit.dot.gov/grants. Calls for projects can be found on the Texas Department of Transportation website at www.txdot.gov/inside-txdot/division/public-transportation/local-assistance.html.

Pandemic Relief Funds and New Federal Funding

Nationally, formula funding for transit grew at an annualized rate of about 4.5% between FY 2015 and FY 2019. Table 17 shows the growth in national formula funding for transit across that time frame. This growth allowed the region's transit agencies to maintain stable revenues as income and expenditures kept pace with each other.

Table 17: National Transit Formula Funding Growth Rate, FY 2015-FY 2019[7]

Year	Total National Formula Funding	Year-Over-Year Growth Rate
2015	$10,890,650,000	1.6%
2016	$11,667,604,639	7.1%
2017	$12,406,302,353	6.3%
2018	$13,363,363,407	7.7%
2019	$13,339,067,030	-0.1%
Annualized Growth Rate, 2015-2019		4.5%

However, the arrival of the COVID-19 pandemic created a fiscal hole for transit agencies across the region and across the nation. Ridership and operating revenues dropped, resulting in agencies needing additional aid to meet their operating costs. Widespread federal financial relief to a range of industries and individuals, including public transit, occurred in the Coronavirus Aid Relief and Economic Security Act (CARES) passed by Congress in 2020, which provided $28 billion to allow public transit to continue to operate in the United States. This funding for agencies within the 13-county region is shown in Table 18.

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[6] Note that CMAQ funding is distributed by the federal government through a formula, but recipients of CMAQ funding have leeway to distribute to sub-recipients through a discretionary process, as H-GAC does for CMAQ funding in the Houston region.

[7] FTA Archived Apportionments, https://www.transit.dot.gov/funding/apportionments/archived-apportionments, Accessed 12/22/2022.

Table 18: 2020 CARES Act Transit Funding by USA

Agency	Houston USA	Conroe-The Woodlands USA	Texas City USA	Lake Jackson USA	Island Transit USA	Rural Funding	TOTAL
METRO	$248,835,226						$248,835,226
Fort Bend County Transit	$4,742,243					$5,422,960	$10,165,203
Harris County Transit	$4,200,000						$4,200,000
Conroe Connection		$2,060,115					$2,060,115
The Woodlands Township		$7,478,137					$7,478,137
Gulf Coast Center (Connect Transit)	$791,867		$4,293,542	$3,258,572		$497,143	$8,841,124
Island Transit					$4,675,290		$4,675,290
Colorado Valley Transit						$1,014,547	$1,014,547
Agency	Houston USA	Conroe-The Woodlands USA	Texas City USA	Lake Jackson USA	Island Transit USA	Rural Funding	TOTAL
Brazos Transit District*						$3,274,357	$3,274,357
TOTAL	$258,569,336	$9,538,252	$4,293,542	$3,258,572	$4,675,290	$10,209,007	$290,543,999

* includes funding outside of Houston-Galveston region

As the pandemic continued, additional federal aid was needed for transit agencies to continue to operate. Unlike standard capital and operating funding, transit agencies were not required to provide a local match but received 100% funding grants from the federal government that could be used for operating, planning, capital, or safety expenses. The passage of the Infrastructure Investment and Jobs Act is expected to bring growth in federal formula funding above and beyond the growth rate in the second half of the 2010s. With transit ridership still below pre-pandemic levels for most agencies, this funding will help ensure the continued financial sustainability of transit agencies in the region. However, unlike pandemic relief funds, these formula funds do require local matching funds. Opportunities to find a local match are described in the following section.

Local Match Opportunities

State Revenues

The Texas Department of Transportation has historically provided transit assistance to small urban and rural agencies. In recent years, due to population growth, it has provided assistance to agencies in urbanized areas under 1 million in population. In Fiscal Year 2021, the Texas Transportation Commission increased the level of assistance to near $70 million.

Local Revenues

Transit systems cannot practically operate in the region with only federal or even federal and state funds. Local funds are essential. METRO is the only agency that has a dedicated funding source, a one cent sales tax that has been in place for more than four decades. Other agencies use local funding from the general county or municipality that can vary from year to year.

Transportation Development Credits

A relatively different sort of revenue instrument has emerged within the region in recent years: Transportation Development Credits (TDCs). They represent the revenues generated by the four county toll authorities (Harris, Fort Bend, Montgomery, and Brazoria counties). TDCs are not money but an offset that can be applied versus federal funding in effect as the local match. For example, 100,000 TDCs can be applied as local match for a $500,000 transit project, be it capital, operating, or planning. The TDC does not increase the value of the project over and above the federal revenue provided. It allows the project to move forward with an alternate form of match.

Possible Future Funding Sources

Additional future local funding sources exist that could augment the options to provide transit sources within the region. Many would require policy changes in the legislature or actions by local officials that have not occurred in the past. Toll road revenues that are in excess of those needed to operate the systems could be transferred to transit agencies though this has not been previously done in the region. Use of dedicated sales tax revenue is currently only possible in the METRO service area since others have reached their sales tax maximum allowed by state law. Bills have been introduced in recent sessions without success to increase the allowable cap above 8.5 cents. It would allow a dedicated transit tax beyond the METRO service area.

As a transit agency, METRO is authorized to issue bonds for long term expenses with public approval in referendum, which it successfully did in November 2019. The Gulf Coast Transit District also would have the authority to issue bonds in the same manner but has not done so. No other transit agencies have the authority to do so.

The 87th Texas Legislature passed a registration fee for transportation purposes that can be used for transit. The counties that could possibly use this fee are Montgomery, Brazoria, and Galveston counties. The legislation allows up to a $10 per vehicle fee to be levied by the county if it successfully passes a public referendum.

Financial Plan Strategies

The 2045 RTP plans for a total of $67.1 billion in transit expenditures in the next 25 years, including operations and capital costs. $38.2 billion of the revenue needed for those expenditures are projected to be generated by METRO for METRO-specific costs. This includes $14.7 billion in METRO farebox recovery and $23.5 billion from the dedicated METRO sales tax. This means that an additional $28.9 billion, or $1.26 billion annually between 2022 and 2045, will be required to fully fund the region's transit expenditures under the RTP recommendations. In FY 2021, a total of $322.1 million was received by all of the region's transit providers from the federal government and $1.9 million in state aid. This means an additional $936 million will be needed in combined federal, state, and local funding to accomplish all transit-related programs listed in the RTP. While much of that funding is accounted for in other funding streams mentioned in the RTP, any additional improvements to service that transit providers may seek to implement beyond those listed in the RTP will require more funding sources. This funding will likely come from a combination of federal and local sources. Several tools may be available to meet this need though the exact tools available to each county or transit provider will differ.

State funding can be used to provide a local match. Transportation Development Credits provide another potential source of local matching funds. With just more than 1 billion in TDCs available for FY 2022, these may be a crucial source of support for many agencies in the region. Farebox revenue may also be a source of local matching funds. Other sources, including those from sales taxes, bonds, or value capture, would require action by state or local governments to be workable.

While local transportation providers may pursue some or all of these options for expanding local match, they may also consider other alternatives that may be more stable in the long term. Providers may consider working together to create a regional Local Match Development Fund, which could include Challenge Grants coordinated through the Houston-Galveston Area Local Development Corporation and other Community Development Corporations (CDCs) in partnerships with local elected officials, local business leaders, and regional public and private transportation service providers.

To further meet the needs of certain key populations in the region, nonprofit organizations that provide services to groups like veterans or persons with disabilities may be able to help fill the need for specialized transportation services. In the focus group targeted at individuals with disabilities, many pointed to groups like the Evelyn Rubenstein Jewish Community Center of Houston's J-Ride program or the transportation services provided by Mounting Horizons as

helping meet some of their transportation needs. Local and state leaders may choose to help organizations like these expand their services to meet some of the existing transportation need.

The transportation landscape in the 13-county region is rapidly evolving. As discussed in the Provider Inventory section, many former transportation providers in the region no longer offer services while new services, such as microtransit pilots, have recently been inaugurated. Alongside these changes, the region may emerge from the COVID-19 pandemic with more workers taking advantage of telework arrangements or non-standard work hours implemented by necessity during the pandemic. These changes may indicate a larger role for transportation demand management strategies in addressing the region's transportation need, and local leaders may consider expanded funding for these efforts as well.

Key Takeaways

- Implementation of the recommendations in this RCTP will likely require the region's providers to find creative ways to increase revenue.
- Recent federal legislation provides new funding opportunities for transportation providers though local matching funds are likely to remain a challenge.
- A variety of opportunities for local matching funds exist, including toll development credits, bonds, and value capture, but some of these sources will require legislative action at the state or local level to implement.
- Increased funding for nonprofit transportation providers and maximizing transportation demand management programs may also help the region meet its transportation needs in a cost-effective way.

Integrated Planning Processes

The region engages in various planning processes that work together to strengthen public transportation. A number of agencies coordinate to make this happen, including planning agencies, transit providers, and health and human service agencies. The planning processes taking place at these agencies augment and leverage one another to help close gaps and reduce overlap of services in the region. These plans include, but are not limited to:

- Statewide Transportation Plan
- 2045 Regional Transportation Plan
    - o 2045 Active Transportation Plan
    - o High-Capacity Transit Summary Report
- Subregional Plans
    - o Mobility Plans
    - o County Thoroughfare Plans
    - o Local Transit Plans
    - o Local Active Transportation Plans
- Stakeholder Plans
    - o 2021-2024 Local Workforce Development Plan
    - o METRO Next

The 2045 Regional Transportation Plan (RTP), which is the primary transportation plan for the region, focuses on the eight-county Metropolitan Planning Area, with a 20-year planning horizon. The RTP identifies the region's transportation needs, goals, and policies over the next 20 years. It also identifies major investment strategies, including roadway improvements, mass transit, and bicycle and pedestrian facilities. This update to the Regionally Coordinated Transportation Plan will have an opportunity to be included as part of the update to the 2045 Regional Transportation Plan that will take place in 2022 and 2023.

Included in the RTP are additional planning efforts such as the coordinating 2045 Active Transportation Plan and High-Capacity Transit Summary Report. The High-Capacity Transit Summary Report was developed by a task force of regional stakeholders in 2017-2019. By working with the area's transit agencies and other stakeholders on this plan, the High-Capacity Transit Report is very much in alignment with the plans of the region's nine transit agencies, including the Metropolitan Transit Authority of Harris County (METRO) and their 2019 METRO Next Plan, which lays out the future for service in the core of Harris County.

The 2045 Active Transportation Plan is also included as part of the regional long-range plan that looks at enhancing pedestrian and bicycle infrastructure in the eight-county MPO. Passed in May 2019, it includes important recommendations about improving connectivity to public transit and closing gaps in sidewalk and bicycle networks that provide critical access to public transportation options. An updated 2045 Active Transportation Plan will be developed in 2022 and 2023 alongside the RTP update.

The RTP from this region joins others from other regions informing the statewide transportation plan developed by the Texas Department of Transportation.

Shorter range plans, such as subregional mobility plans, local transit plans, and local active transportation plans, also exist in the region. These take recommendations from the long-range planning processes mentioned above and dive into greater detail about when, where, and how to make them happen. These are guided by local communities and incorporate additional plans that have been developed regarding the community, including community master plans, economic development plans, land use plans, and more. Examples of these plans include the 2015 Woodlands Transit Plan and the currently in progress Liberty County Mobility Study.

As plans solidify and are ready for implementation, they are selected for inclusion in the region's four-year Transportation Improvement Program. This program outlines funding for projects in the region over the four-year time frame. The current Transportation Improvement Program is for 2021-2024. It was developed in 2020 and is updated every two years. The next opportunity to program funds will take place in 2022 for the 2023-2026 Transportation Improvement Program.

These transportation plans support other planning processes by health and human services and workforce agencies. In the 13-county area, there is a 2021-2024 Local Workforce Development Plan outlining key data and opportunities related to meeting the region's employment needs. Transportation is an important component of meeting these needs. Programs assisting seniors and persons with disabilities funded through allocations from the federal 5310 program help meet human service transportation needs, and these programs must be in concordance with their region's RCTP. In addition to the $4,063,288 provided from the 5310 program to large urbanized areas in the region (see Table 16), the Texas Department of Transportation also

distributes 5310 funding to small urban and rural areas of the region. The 5310 funding provided by TxDOT to the region's small urban and rural transportation providers in FY 2021 are listed in Table 19 below.

Table 19: 5310 Funding Allocations to Small Urban and Rural Providers, FY 2021

Provider	Amount
Brazos Transit District	$674,013
Colorado Valley Transit	$210,000
City of Galveston	$200,000
Meals on Wheels Montgomery County	$158,333
Mounting Horizons	$265,834
Total	$1,508,180

Additionally, members of the Regional Transit Coordination Subcommittee represent health and human services and workforce agencies although membership on this subcommittee, and therefore the exact agencies represented, changes on an annual basis. These members are able to provide the perspectives of their agencies to influence the development of transportation plans and disseminate relevant information from these plans to the agencies they represent. The committee advises H-GAC's Transportation Advisory Committee (TAC) and Transportation Policy Council (TPC) on projects and programs.

Environmental Justice

H-GAC's 2017 Environmental Justice Plan provides an overview of the eight-county metropolitan planning region's environmental justice (EJ) populations and offers strategies for incorporating the needs of EJ populations into policy choices. There is significant overlap between EJ populations as defined in that plan and the key populations examined in this plan. Federal guidance defines EJ communities based on their share of low-income individuals and racial/ethnic minorities as compared to that of the region as a whole. H-GAC expands on this definition by adding five "secondary indicators" of disadvantage, including limited English proficiency, senior status, limited educational attainment, households without cars, and female-headed households.

The 2017 plan examines transport characteristics of EJ communities within the MPO. EJ communities are less likely to have access to pedestrian and bicycle infrastructure, with only one-third of all dedicated infrastructure for these modes found within EJ communities. While transit-route miles in EJ communities are twice as high as transit route-miles outside EJ communities, the plan also notes that most of the lowest-frequency services in the MPO serve EJ communities in northeast Houston. Additionally, 49% of all households within EJ communities would need more than 60 minutes to travel to a hospital on public transit.

This Regionally Coordinated Transportation Plan update is in concordance with the strategies for promoting environmental justice laid out in the 2017 plan. Among the strategies described in the 2017 plan are increasing cooperation between agencies and regional partners and studying the needs of EJ populations to understand the social impacts of transportation planning choices.

Furthermore, the EJ analysis demonstrates the importance of improving transportation access in EJ communities.

Many of the recommendations in this RCTP update, if implemented, would further the region's environmental justice efforts. Examples include improving frequency and span of service on existing transit options, as many of the least frequent transit options can be found in EJ communities, as well as improving pedestrian and bicycle infrastructure to improve access to existing transit options. This RCTP update is compatible with the region's existing environmental justice efforts.

Vision, Mission, Goals, and Objectives

The vision, mission, and goals of the Regionally Coordinated Transportation Plan were developed with an eye towards expanding the many benefits of public transportation services throughout the region. These goals were then connected to several specific objectives that the RCTP seeks to accomplish. Finally, potential performance measures were developed for each objective, and data sources that could be used to monitor those performance measures were identified. This will allow the region to track its progress towards improved transportation services and overall quality of life. Each goal is assigned a number and a color, and these numbers and colors are used below to connect goals with objectives and performance metrics. For each objective, the data needed to evaluate it are also listed.

Vision

The vision for the Houston-Galveston Area Council's Regionally Coordinated Transportation Plan is as follows:

Equitable access to jobs, healthcare, and other opportunities will be guaranteed to everyone in the Texas Gulf Coast region through the provision of abundant, safe, reliable, and well-connected public and human service transportation.

Mission

The mission for the Houston-Galveston Area Council's Regionally Coordinated Transportation Plan is as follows:

H-GAC and key stakeholders will understand the region's transportation needs and the barriers to meeting those needs. They will recommend and implement high-quality, cost-effective interventions to fill gaps and expand access to transportation services in the region.

Goals

1. Increase the percentage of residents in the region with access to public transportation services.
2. Improve the safety of transportation services in the region.
3. Enable the region's public and human service providers to provide a longer span of service.

4. Reduce emissions caused by transportation in the region.

Objectives and Performance Metrics

Table 20: Summary of Objectives and Performance Metrics

Objective	Related Goals	Performance Metrics	Data Needs
Increase awareness among officials and the public of the need for increased transit and human transportation services in the Texas Gulf Coast region.	1, 2, 3, 4	• Number of meetings and presentations to public and elected bodies • Visits to H-GAC and transit agency websites • Number of PSAs promoting transit run on traditional and social media • Number of members of the public reporting being better informed about public and human services transportation	• Materials from meetings with public and elected officials (agendas, minutes, etc.) • Website and social media metrics reports (hits, click-throughs, likes, shares, etc.) • Pre- and post-event surveys from transportation-related public events, including transit ambassador events and events hosted by public transit providers
Seek to initiate new fixed route transit services or expand in areas where it is identified as needed.	1, 4	• Number of new local fixed route miles added	• Updated route maps, schedules, GTFS feeds, press releases, and/or announcements from transit agencies
Seek to start demand-response service in areas where it is identified as needed.	1, 4	• Number of new demand response services added	• Updated route maps, schedules, press releases, and/or announcements from transit agencies
Endeavor to enhance regional coordination for transit and human service transportation where possible.	1	• Number of examples of inter-agency coordination, including but not limited to Regional Fare Initiative, cooperative purchasing initiatives, and shared operations and maintenance facilities • Number of meetings held between H-GAC and human service providers • Number of partnerships between transit agencies and other regional transportation providers	• Press releases, announcements, and other reports from transit agencies and other providers

Objective	Related Goals	Performance Metrics	Data Needs
Meet gaps with appropriate or innovative human and social transportation services in areas where service by adequate transit is difficult or not feasible.	1, 4	• Number of new or expanded human or social transportation services in identified areas of need	• Announcements and press releases from transportation providers
Identify additional means of funding transit and human and social service transportation services.	1, 3	• Number of sources of funding for transit agencies and other transportation providers • Amount of capital and operating funds available to transit agencies and other transportation providers	• Press releases, announcements, and/or financial reporting from transit agencies and other transportation providers
Improve the level of service and span of existing providers.	3, 4	• Number of existing routes with an increase in weekday span of service • Number of existing routes with an increase in weekend span of service • Number of routes with off-peak headways of 15 minutes or less • Number of routes with off-peak headways of 60 minutes or more • On-time performance for existing services	• Schedules, GTFS feeds, press releases, and/or announcements provided by transit agencies
Develop innovative means to fund alternate mobility solutions, such as microtransit, considering alternate funding sources and public private partnerships.	1, 3	• Number of new alternate or innovative mobility solutions and services inaugurated in the region	• Announcements and press releases from transit agencies and other transit providers
Adjust and adapt to the evolving situations that occur as they relate to the COVID-19 pandemic.	2	• Service changes and mitigation measures taken by transit operators to protect riders and operators • Number of riders using transit during and following the pandemic	• Transit agency responses to periodic H-GAC coronavirus surveys
Facilitate the use of electric and zero emissions vehicles	4	• Percentage of electric and ZEVs in regional transit fleet	• Periodic fleet reports from the region's transit agencies

Objective	Related Goals	Performance Metrics	Data Needs
(ZEVs) in the development of new transit services.		• Progress towards meeting federally required NOx and VOC emissions reductions	• HGAC Transportation Performance Management annual reports

Sustain Planning and Implement Plan

The Houston-Galveston Area Council as the region's council of governments and metropolitan planning organization has a unique ability to continue sustained planning to support and coordinate transportation in the region. With its workforce, aging, and transportation divisions, the agency collaborates to integrate a variety of partners and stakeholders in planning and to continue identifying and addressing gaps in service. The agency has more than 240 staff members, including approximately 60 transportation planning staff.

Organizational Structure

The transportation planning staff includes members with key knowledge in areas such as transit planning, travel modeling, GIS support, database assistance, environmental justice/Title VI, bicycle/pedestrian planning, and transportation demand management strategies. There will be opportunities for coordination and continued planning with the update of the Regional Transportation Plan in 2022 to include the efforts undertaken for the RCTP update. There will also be an update of the Transportation Improvement Program during this year, where collaboration is underway to continue set-aside programs, such as the Commuter and Transit Pilot program and the Regional Fare/Transit Connectivity program, to make it easier for riders to travel throughout the region. The Call for Projects for the Transportation Improvement Program will also allow for inclusion of other gap filling projects for improving access to and providing seamless connections for the transportation options that exist in the region.

Staff can also help transit agencies and other local stakeholders understand how their organizations and our region can benefit and access new funding available and identified in the financial plan outlined within the Planning for Integrated Services section of this document. H-GAC staff can connect the dots between transportation and other H-GAC programs available through Workforce Solutions, the Houston-Galveston Area Agency on Agency, the HGACBuy Cooperative Purchasing program, and others.

The transit planning team in particular will be key to ongoing planning and implementation. This team includes a principal planner, two senior planners, and a planner specialist. Implementing the RCTP will be one of the transit planning group's important goals and objectives in the coming years. They will assist directly by leading follow-up and implementation of the plan, including development of an action plan to ensure progress on recommendations over the next five years. This team will also help indirectly by working with the region's providers to improving access to services through related planning and implementation projects.

Means of Engaging Regional Stakeholders

Engaging regional stakeholders is incredibly important to the agency and to this iteration of the RCTP. As the scope of the Regional Transit Coordination Subcommittee has shifted to provide better coordination on transit generally, including that provided to vulnerable audiences, one recommendation coming out of this plan is to form a new stakeholder group to inform the region's transportation efforts.

This group will combine planning agencies with private and public transportation providers, health and human service agencies, and the vulnerable populations we serve. It will focus specifically on improved coordination, planning, and service for vulnerable populations throughout the region. This recommendation responds to feedback earlier described from the regional transportation provider survey and regionally coordinated transportation survey and is just one way we will engage stakeholders.

Other ways we will engage stakeholders include:

- Working with ongoing subregional coordination efforts related to mobility, transit, and local active transportation plans
- Providing updated information through an online newsletter and social media on the progress of the RCTP
- Coordinating with local transit agency public outreach efforts, including public meetings, websites, social media, etc.

Performance Measures to Evaluate Effectiveness

The vision, goals, objectives, and related performance metrics identified as part of this RCTP also support closing the gaps identified in its analysis. Four broad categories of gaps were identified for coordinated transportation planning:

1. Transit service is nonexistent in some parts of the region and in others may not meet transportation needs.
2. Travelers do not know about transportation services available to them or are unable to easily find vital information about these services in their community.
3. Existing specialized services for seniors and individuals with disabilities often do not provide timely or reliable service, and trips that require crossing service area boundaries can be difficult or impossible to make.
4. For-profit and nonprofit transportation providers in large part do not feel included in regional transportation planning and coordination efforts.

Below are the performance metrics/measures from Table 20 that H-GAC staff will use to measure progress in closing gaps:

1. Number of new local fixed route miles added (H-GAC staff can gather from working to update the regional transit map using updated route maps, GTFS, announcements, etc. from local transit agencies)

2. Number of new demand response services added (H-GAC staff can gather from working with local transit agencies using updated route maps, announcements, etc. from local transit agencies)
3. Number of new or expanded human or social transportation services identified in areas of need (information gathered from efforts to update inventory annually and announcements and press releases from providers)
4. Number of riders using transit (H-GAC staff can use surveys and national transit data quarterly or annually)
5. Number of members of the public reporting being better informed about public and human services transportation (H-GAC staff can conduct a study with surveys during the course of the plan)
6. On-time performance for existing services (H-GAC can gather this data annually from the area transit agencies)
7. Number of examples of inter-agency coordination (H-GAC can pull this data from annual inventory updates)
8. Number of meetings held between H-GAC and human service providers (H-GAC can track this activity annually)
9. Number of partnerships between transit agencies and other regional transportation providers (H-GAC can pull this data from annual inventory updates)

In addition to these measures, we will monitor overall plan progress by capturing items in this plan that move from planning to implementation throughout the five-year period.